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Background Data Measures for Predicting Security Risks: Assessment of Differential Moderators

Final Report
Contract No. N00014-931-0339

January 1994

by

Michael D. Mumford, Theodore L. Gessner,
Jennifer A. O'Connor, Julie F. Johnson,
Robert J. Holt, and Jennifer B. Smith

Submitted to:

Financial and Credit Personnel Security Research Program
Defense Personnel Security Research and Education Center
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Executive Summary

Destructive, counterproductive acts come in many forms. Some of these acts, such as espionage and theft, can have marked direct effects on overall organizational performance. Other kinds of destructive acts, such as managerial coercion or self-centered decisions, can disrupt organizational performance in a more subtle but nonetheless powerful fashion. The present study represents part of an ongoing effort being supervised by the Personnel Security Research Center of the U.S. Office of Naval Research concerned with the identification and assessment of the personal characteristics promoting the propensity for destructive acts.

Earlier studies by Mumford, Gessner, O'Connor, Connelly, and Clifton (1992) and Mumford, O'Connor, Clifton, Gessner, Johnson, and Connelly (1993) have identified a limited set of constructs that appear to influence the propensity for destructive acts. The constructs found to have a marked impact on the occurrence of these acts include Object Beliefs, Power Motives, Negative Life Themes, Outcome Uncertainty, Fear, Narcissism, and Low Self-Regulation. These studies have also shown that background data items can be used to develop reliable and valid measures of these constructs for use in security screening.

Given the findings obtained in these initial studies, the present effort had two goals. First, we hoped to obtain additional evidence for the construct validity of these measures by showing that they could account for performance on integrity tests. Second, we wanted to formulate and validate a set of background data items that could capture life experiences contributing to the development of these characteristics.

For this project, a combined sample of some 500 undergraduates participated. In the first set of studies, subjects were administered the background data measures of the constructs (i.e., Object Beliefs, Power Motives, Negative Life Themes, etc.) held to influence the propensity for destructive acts. Subjects were also asked to complete overt measures of integrity (the Reid Report and the Personnel Selection Inventory (PSI)) as well as two personality-based measures of integrity (the Minnesota

Multiphasic Inventory (MMPI) and California Psychological Inventory (CPI)). The general causal model developed by Mumford, O'Connor, Clifton, Gessner, Johnson, and Connelly (1993) was then used to account for scores on each of these integrity tests. It was found that this general model could account for scores on all four integrity measures yielding cross-validated fit indices on average of .97 and residual terms at or below .10.

In the second study, background data items were developed to capture life history events that might influence development of the characteristics found to influence the propensity for destructive acts. In a subsequent factoring of these items, seven situational factors were identified: (1) Alienation, (2) Nonsupportive Families, (3) Negative Role Models, (4) Life Stressors, (5) Competitive Pressure, (6) Negative Peer Group Influences, and (7) Financial Need. These situational factors were found to be positively, but weakly, related to scores on the background data scales measuring behavioral characteristics contributing to destructiveness. Further, these situational factors were correlated with the tendency to suggest responses to complex, ill-defined problems likely to result in harm to others or the broader organization while yielding sizable correlations with attitudes towards dishonest behavior.

The findings obtained in these studies, therefore, provide further support for the ability of the model and measures developed by Mumford, O'Connor, Clifton, Gessner, Johnson, and Connelly (1993) to account for the propensity for destructive acts; moreover, the situational factors developed in the study were found to be related to the expression of destructive tendencies. Factors, such as Financial Need, Limited Family Support, and Competitive Pressure, might provide a means of identifying individuals who need to be reassessed because they are at risk for security violations.

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Introduction

The performance of any organization is contingent on the integrity and responsibility of its employees. Employees who provide competitors or, for that matter, other government(s), with sensitive information may cause untold financial damage and the loss of lives and livelihood. A leader who makes decisions that hurt long-term growth to get a bonus harms not only the people employed by the organization but also the organization's future economic growth. A police officer who takes bribes from drug dealers may destroy the credibility of the force while costing society hundreds of thousands of dollars in drug control efforts.

These observations point to a major problem confronting government and industry: *How can we ensure employee integrity and control these socially destructive acts?* Prior research indicates that situational influences, such as opportunity and perceived payoffs, influence the propensity for destructive acts (Darley, 1992; Forsyth & Nye, 1990; Hartshorne & May, 1928; Rapoport & Eshed-Levy, 1989). Recent studies, however, indicate that certain characteristics of the individual also influence the occurrence of these acts. Ones, Viswesvaran, and Schmidt (1993), for example, conducted a meta-analysis of the validity coefficients obtained in 77 studies of integrity tests and found that these tests predict destructive, counter-productive behaviors, such as absenteeism and theft. Other research by Mumford, Gessner, Connelly, O'Connor, and Clifton (1993) and Trevino and Youngblood (1990) has shown that personal characteristics, such as one's beliefs, motives, and self-system, contribute to the tendency of managers to make destructive, unethical decisions when confronted with complex organizational problems. These findings suggest that certain characteristics of the individual may influence the propensity for destructive acts.

Given there is reason to suspect that certain differential characteristics influence the propensity for destructive acts, organizations might seek to control such acts by using measures of individual beliefs, motives, and self systems to screen high-risk employees. Alternatively, organizations might monitor job

and life events that influence the expression of these characteristics to identify and control at-risk employees.

In light of these observations, the intent of the present study was two-fold. First, to provide additional evidence for the validity of a general model describing the personal characteristics contributing to the propensity for destructive acts. Second, to identify the life events that contribute to the expression of these characteristics and development of the propensity for destructive acts. It was hoped that these measures might be used in screening job applicants and monitoring the risk level of current employees.

Background

Differential Characteristics

Mumford and his colleagues have conducted a series of studies intended to identify the kind of differential characteristics that influence the occurrence of destructive acts (Gessner, O'Connor, Clifton, Connelly, & Mumford, 1993; Holt, Clifton, O'Connor, Johnson, & Mumford, 1993; Mumford, Gessner, O'Connor, Connelly, & Clifton, 1992; Mumford, O'Connor, Clifton, Gessner, Johnson, & Connelly, 1993). This work began with a systematic review of recent work in clinical psychology, personality theory, criminality, and integrity testing. The intent of this review was to identify a set of differential constructs, or personal characteristics, influencing the propensity for destructive acts. This review led to the identification of three broad categories of constructs that appeared to influence the propensity for destructive acts: beliefs, motives, and self-concepts.

Prior research indicates that power motives, fear, narcissism, and self-aggrandizement contribute to the propensity for destructive acts (Emmons, 1981, 1987, 1989; Fromm, 1973; House & Howell, 1992; Mason & Blankenship, 1987; Raskin, Novacek, & Hogan, 1991; Winter, 1987). Other research examining self-system constructs has shown that poor self-regulation (Pulkkinen, 1982; Trevino & Youngblood, 1990); low self-esteem (Falbo & Sheppard, 1986); social alienation (Walters, 1990); and negative life themes, or an image of life lacking manifest commitment to the broader social interest

(Adler, 1928; Oyserman & Markus, 1990a, 1990b; Vitz, 1990), also represent important influences on these acts. Finally, studies by Blass (1991); Becker (1975); Fromm (1973); Hunter, Gerbing, and Boster (1982); Heath and Martin (1990); and Martin, Scully, and Levitt (1990) indicate that stable, enduring beliefs may also contribute to the propensity for destructive acts. More specifically, it was found that negative beliefs about humanity, a belief that desired outcomes were uncertain or unattainable, a belief that most events would result in negative outcomes, and the belief that others could be treated as objects or tools to be used for personal gain were all potentially important influences on the propensity for destructive acts.

Mumford, Gessner, O'Connor, Connelly, and Clifton (1992) generated background data or life history measures to assess each of the belief, motivational, and self-system constructs held to influence the propensity for destructive acts. These measures were generated using the procedures recommended by Mumford and Owens (1987); Mumford and Stokes (1992); and Mumford, Uhlman, and Kilcullen (1992). Accordingly, definitions of these constructs were presented to a panel of eight psychologists. Panel members were asked to generate 10 to 15 background data items reflecting behavior and experiences that would mark each construct in situations to which most people are exposed in adolescence and young adulthood. After these measures had been screened for construct relevance, freedom from bias, controllability, and transparency, they were administered along with a battery of reference measures to two samples, each containing some 250 undergraduates.

The resulting data indicated that (a) these scales evidenced adequate reliability yielding a median internal consistency coefficient of .73; (b) scale scores were not strongly influenced by social desirability, as measured by the Crowne-Marlow, typically providing bivariate correlations below .20; (c) these scales displayed a coherent substantively meaningful pattern of relationships such that object beliefs was strongly related to negative beliefs about humanity ($r = .35$), while narcissism was strongly related to self-aggrandizement ($r = .54$); (d) these background data scales also evidenced an interpretable pattern of relationships with the external reference measures such that the narcissism scale produced the expected

negative correlation with a reference measure tapping guilt ($r = -.16$) and a positive correlation with shame ($r = .19$); (e) these scales were negatively related to objective indices of performance in the U.S. Department of Defense.

More recent studies have sought to accrue additional evidence for the construct validity of these scales. Mumford, O'Connor, Clifton, Gessner, Johnson, and Connelly (1993), for example, contrasted objective, verifiable background data measures of these constructs with the original soft, subjective scales used to measure the belief, motivational, and self-system constructs. They found that these objective markers converged with soft, more subjective background data items intended to measure the same constructs. In another study, Gessner, O'Connor, Clifton, Connelly, and Mumford (1993) examined how the beliefs held to influence destructive, immoral acts emerged over the course of time. They found that object beliefs and negative beliefs about humanity emerged from more basic beliefs, such as outcome uncertainty and negative beliefs about outcomes, in accordance with Erikson's (1963) and McAdam's (1989) models of moral development. Finally, an on-going study by O'Connor, Mumford, Timm, Gessner, Holt, and Smith (1994) appears to support that personality-based measures of these constructs converge with the relevant background data scales and are capable of predicting destructive acts in a national sample of law enforcement officers.

Although this research has provided evidence for the ability of these constructs to account for destructive, counter-productive behavior, it has not established the key constructs or core causal variables that determine the occurrence of these acts. More recent work has focused on establishing these causal relationships. In an initial study along these lines, Mumford, Gessner, Connelly, O'Connor, and Clifton (1993) asked 156 management majors to complete a battery of personality and ability measures as part of a regional sales manager assessment center. The battery of performance measures included background data scales intended to measure object beliefs, power motives, and negative life themes. These scales were administered because they had been found to be strongly related to destructive acts in earlier studies.

After completing these measures, subjects were asked to complete a 32-item "in-basket." Here, eight items reflected decisions that would harm others, while eight other items reflected decisions that would harm the organization. Sixteen "filler" items reflecting benign organizational and interpersonal decisions were included in the "in-basket" to manipulate organizational norms concerning employee treatment, perceived psychological distance, and feelings of self-efficacy. The impact of these variables on destructive interpersonal and destructive organizational decisions was assessed in an analysis of variance, where a blocking variable reflecting high and low scores on the object beliefs, power motives, and negative life themes scales was included in the design. It was found that destructive individuals, as defined by scores on these three scales, conformed to organizational norms with regard to interpersonal decisions. At the same time, however, destructive individuals were likely to make decisions that harmed the organizations, particularly when they felt threatened due to low self-efficacy.

At least two other studies have demonstrated the importance of object beliefs, power motives, and negative life themes in determining the propensity for destructive acts. In one study, Holt, Clifton, O'Connor, Smith, Gessner, and Mumford (in review) had 166 subjects allocate fines in a landlord/tenant civil dispute under conditions where the content of the testimony was manipulated to display different levels of object beliefs, power motives, and negative life themes. Figure 1 illustrates the results obtained in this study. As may be seen, testimony leading the jurors to perceive object beliefs, power motives, and negative life themes on the part of the landlord led them to allocate larger fines. In the other study, O'Connor, Mumford, Clifton, Gessner, and Connelly (in review) content-coded the biographies of destructive and nondestructive charismatic leaders for differential constructs related to the propensity for destructive acts. It was found that power motives, object beliefs, and negative life themes emerged as a closely related syndrome of variables that could account for a substantial portion of the variance in the harm leaders did to an organization.

Having provided evidence that object beliefs, power motives, and negative life themes represent important influences on the occurrence of destructive acts, an attempt was made to determine the causal

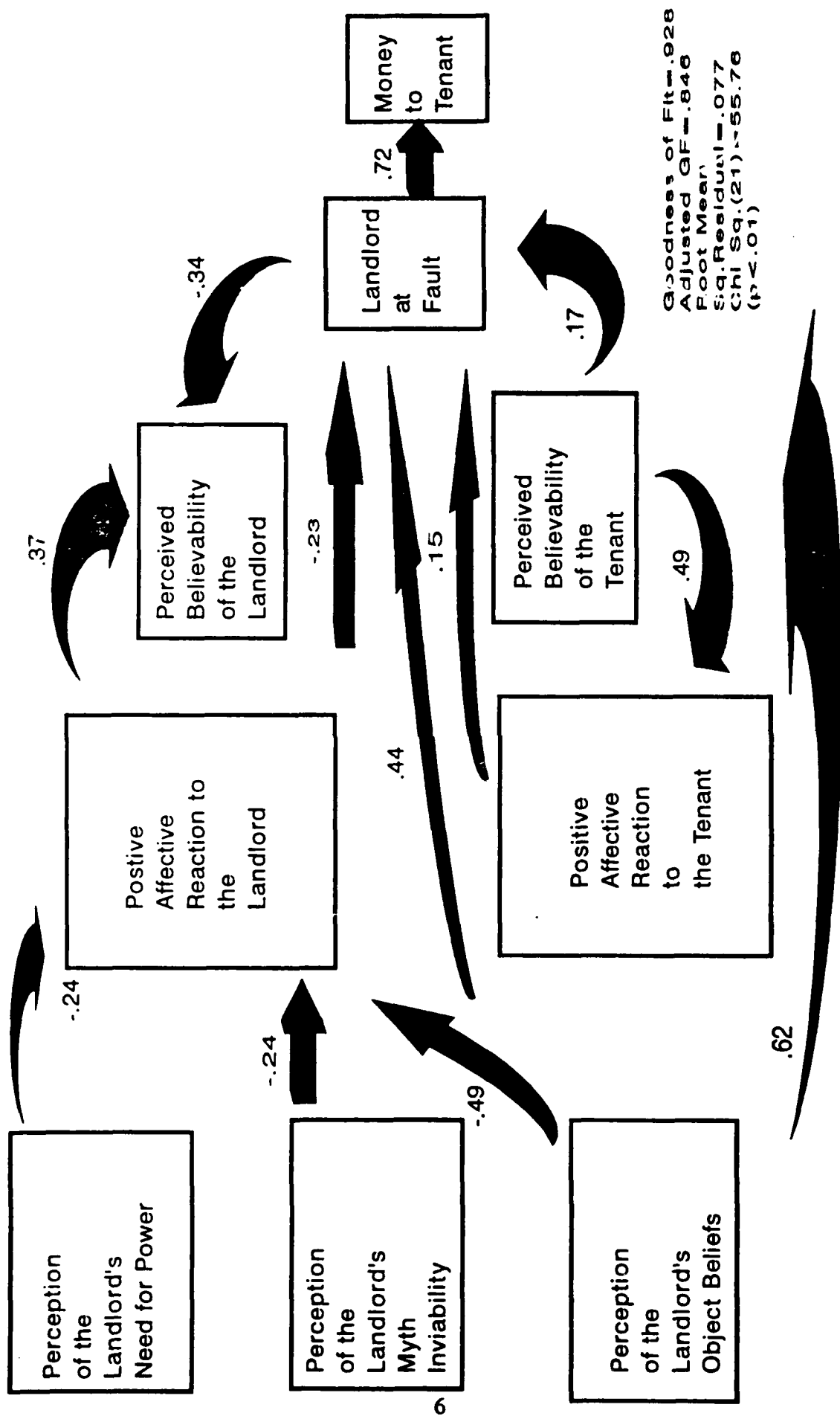


Figure 1. Model of Juror Decision Making.

relationships between these variables and other constructs (e.g., fear and narcissism) held to influence the propensity for destructive acts. Based on the findings obtained in earlier studies and the available theoretical literature, Mumford, O'Connor, Clifton, Gessner, Johnson, and Connelly (1993) argued that fear and narcissism promote the development of outcome uncertainty and power motives. Power motives were held to contribute to the development of object beliefs which, in turn, contribute to the expression of negative life themes. Negative life themes, object beliefs, power motives, and outcome uncertainty are held to exert a direct influence on destructive acts along with self-regulation which may act as an inhibitory influence. Figure 2 illustrates the nature of the general model.

In an initial test of this model, Mumford, O'Connor, Clifton, Gessner, Johnson, and Connelly (1993) used a LISREL VI path analysis to assess whether this model could account for life history manifestations of greed, dishonesty, and a lack of commitment to others. It was found that this general model could account for these three manifestations of destructive tendencies yielding cross-validated fit indices above .95 and residual terms below .09. This model was also used to account for the measures of destructive interpersonal and destructive organizational decisions developed by Mumford, Gessner, Connelly, O'Connor, and Clifton (1993). Again, cross-validated fit indices above .92 and residual terms below .13 were obtained. Figures 3, 4, and 5 illustrate the models obtained for greed, destructive interpersonal decisions, and destructive organizational decisions. These models are of interest because they all support the general sequence of causal connections sketched out above.

Although these studies have provided some initial support for this model, the criterion measures used in all of these studies did not represent standard indices of integrity or destructiveness. Thus, there was a need to see if this model could be extended to account for scores on standard, well-validated measures of integrity. Sackett and Harris (1984) and Sackett, Burris, and Callahan (1989) distinguish between two types of integrity tests: overt and personality. Overt tests include tests such as the Reid Report and the London House Personnel Selection Inventory (PSI). The Reid Report and PSI represent the two most commonly used overt measures. In general, they assess an applicant's attitudes toward

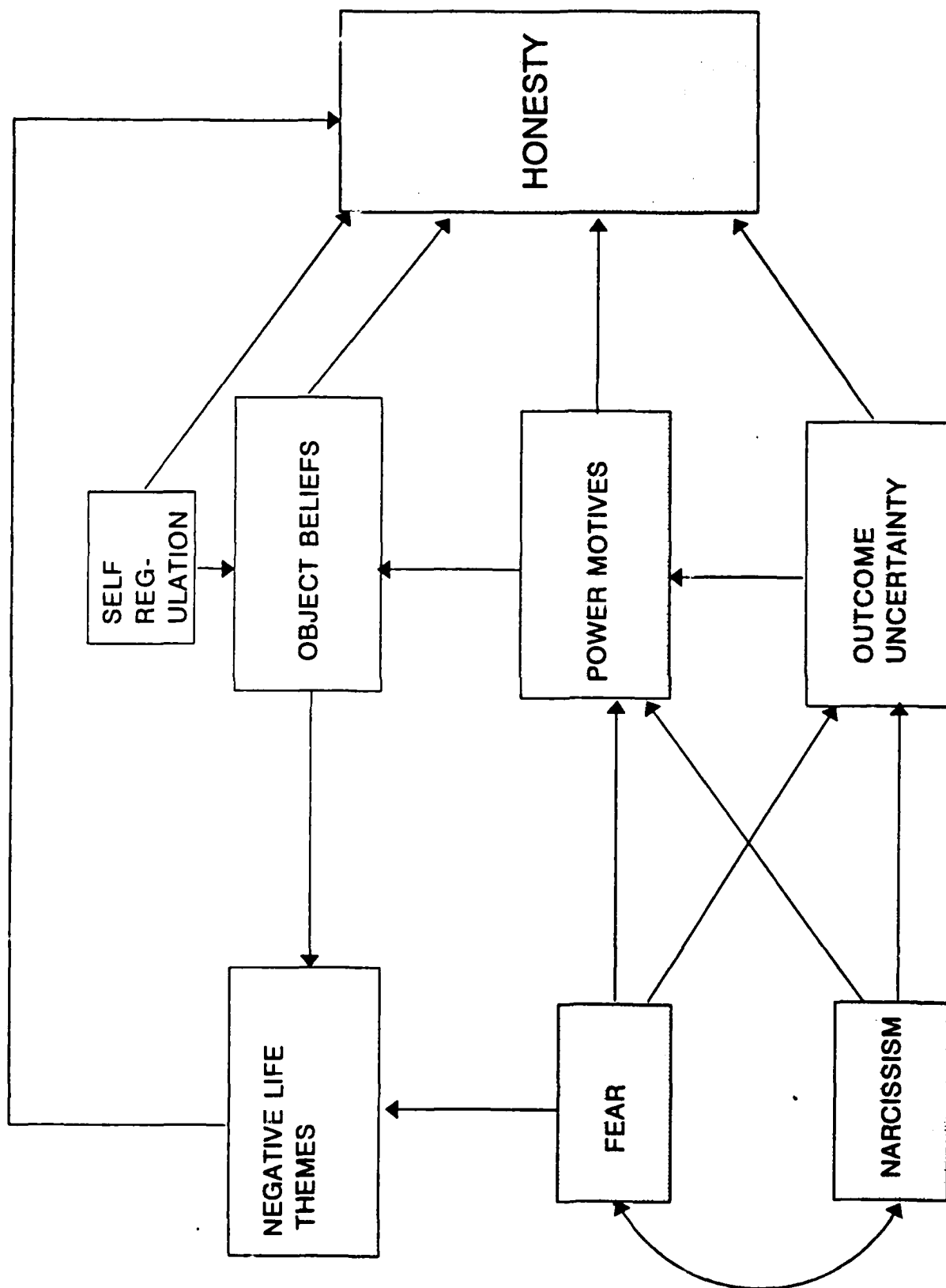


Figure 2. General Model Predicting Destructive Acts.

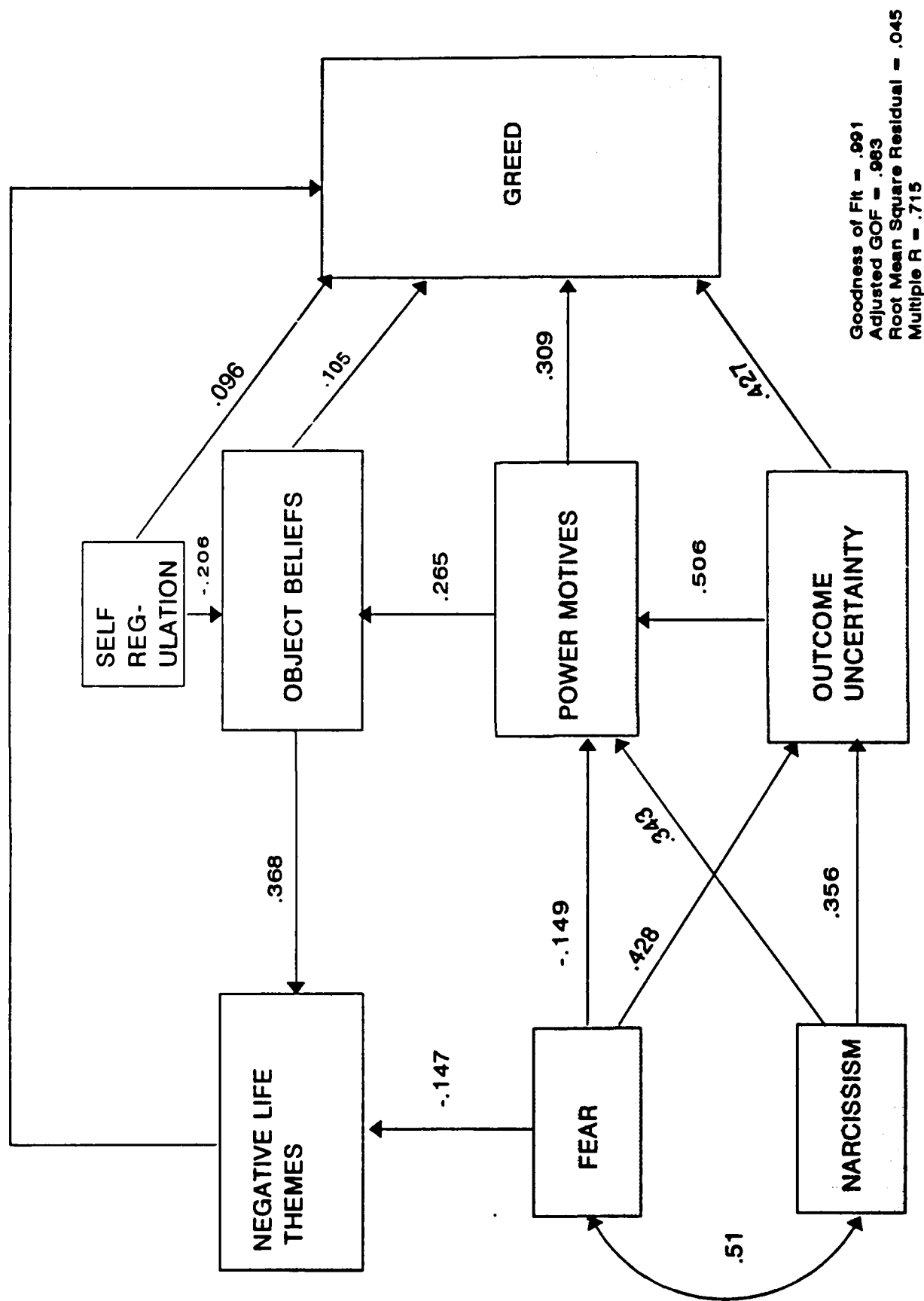


Figure 3. General Model Predicting Greed.

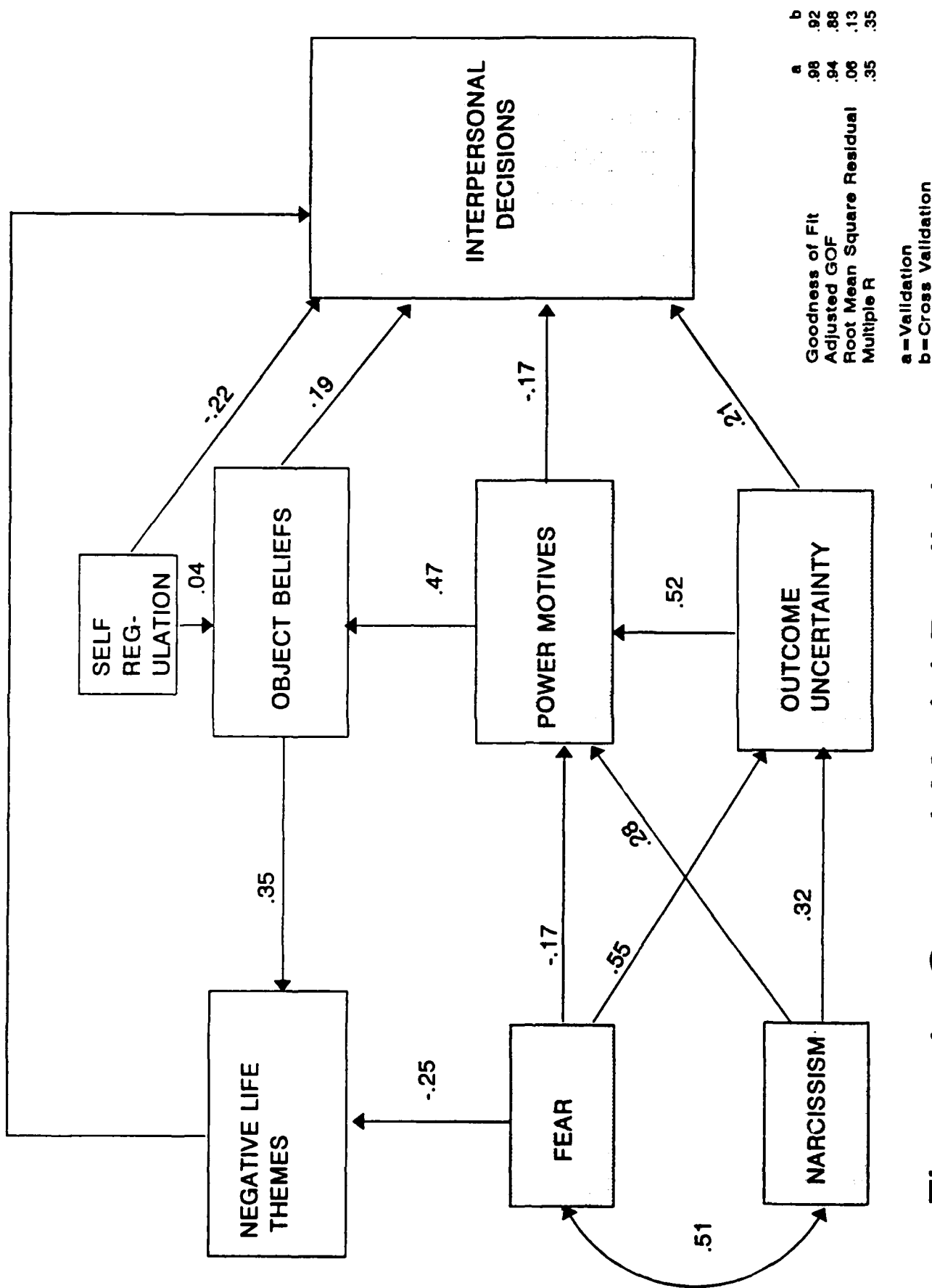
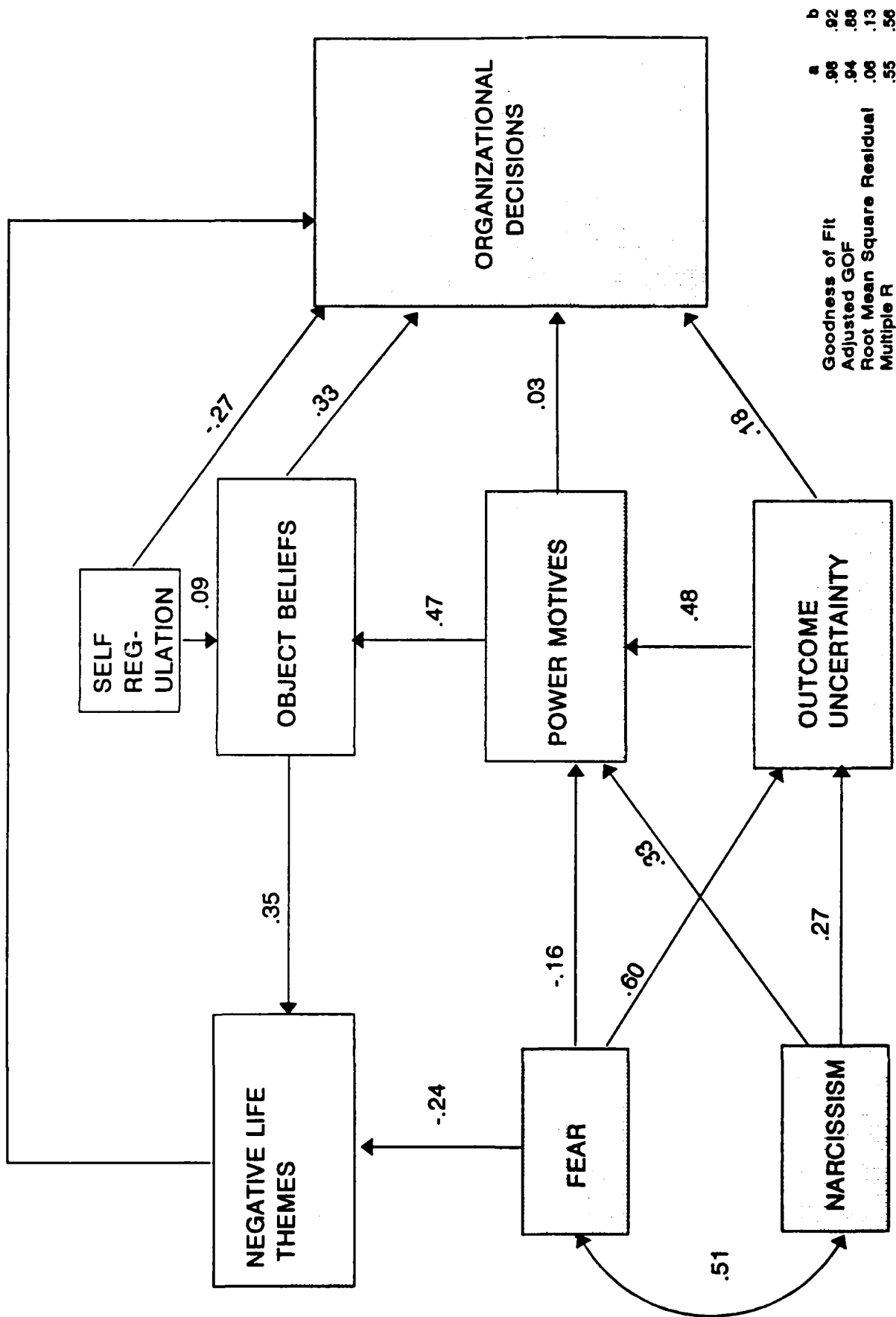


Figure 4. General Model Predicting Destructive Interpersonal Decisions.



Goodness of Fit
Adjusted GOF
Root Mean Square Residual
Multiple R

	a	b
Goodness of Fit	.98	.92
Adjusted GOF	.94	.88
Root Mean Square Residual	.06	.13
Multiple R	.55	.56

a=Validation
b=Cross Validation

Figure 5. General Model Predicting Destructive Organizational Decisions.

theft. Such attitudes have been demonstrated to predict counter-productive behaviors, such as theft (Alvord, 1985; Ash, 1975; Jones 1980); absenteeism (Jones, 1981); and exam recommendations on a lie detector test (Ash, 1971; Cunningham, 1984; Tems & Jones, 1982). The second type of integrity test—personality-based measures—are drawn from the California Psychological Inventory (CPI) and the Minnesota Multiphasic Inventory (MMPI). Scales from the CPI and MMPI have also displayed some ability to predict destructive acts and are widely used in security screening (Gough & Bradley, 1992).

Because overt and personality-based measures of integrity evidence some construct validity and have been shown to predict destructive, counter-productive behavior (Ones, Viswesvaran, & Schmidt, 1993), these measures appeared to provide a useful vehicle for assessing the validity of the general causal model proposed by Mumford, O'Connor, Clifton, Gessner, Johnson, and Connelly (1993). Thus, the first major objective of the present effort was to establish that the model of constructs influencing the propensity for destructive acts could, indeed, be used to account for scores on two overt and two personality-based measures of integrity.

Situational Influences

The belief, motivational, and self-system constructs held to influence the occurrence of destructive acts do not arise in a vacuum. Because situational variables shape the kind of goals presented to people and potential paths to goal attainment, one might expect that situational variables play a role in conditioning the propensity for destructive acts. In fact, the 65% compliance rate observed by Milgram (1974) indicates that some situations represent particularly powerful influences of these acts. Findings of this sort have led Darley (1992) and Staub (1985, 1989a, 1989b) to argue that situational variables need to be considered in any comprehensive system intended to account for destructive tendencies.

With regard to motives, there is good reason to suspect that situational variables may play an important role in activating variables, such as fear, power motives, and, potentially, narcissism or self-aggrandizement. This point is illustrated in Winter's (1987) study of how situational variables, particularly prior socialization and the expectations of significant others, influence the expression of

power motives on men's and women's disinhibitory acts. Beyond this structural channelling, situational variables might influence motive expression in at least three other ways. First, the goals manifest in the situations presented to an individual condition whether a motive is likely to be activated (Yamagishi & Sato, 1986). Second, when a motive is activated, the situation may provide different avenues for expression of the motive such that perceived opportunities and sanctions may channel motive expression and, thus, the form of destructive acts (Sanford & Comstock, 1971; Walters, 1990). Third, prolonged activation of motives and goal-seeking scripts may create cognitive structures that lead individuals to seek, perceive, and react to goals in a destructive way (Moog, Mathews, Bird, & McGregor-Morris, 1990).

There is also reason to suspect that expression of self-system constructs is influenced by situational forces. This point is nicely illustrated in the research on disinhibition, where it has been found that conditions that serve to diminish individual responsibility and, thus, effective self-regulation lead to destructive acts (Diener, Dineen, Enderson, Beaman, & Fraser, 1975; Zimbardo, 1974). Other work by Bandura (1989) and Gibson and Haritos-Fatouros (1986) indicates that conditions leading to deindividuation may also lead people to view others as insignificant, unimportant entities promoting the development of localized, situation-specific object beliefs.

Although beliefs have a stable and enduring component, localized beliefs which apply to the situation at hand also develop with experience (Bandura, 1986). There is, in fact, some reason to suspect that aspects of the situation that promote the development of localized object beliefs or outcome uncertainty can influence the propensity for destructive acts. For example, Martin, Scully, and Levitt (1990) found that uncertainty about future social conditions promoted revolutions, while Trevino and Youngblood (1990) found that beliefs about the organization's reactions to unethical acts influence people's beliefs and, therefore, their willingness to engage in these acts. It might also be argued that situations leading to a knowledge and understanding of others will inhibit the development of object beliefs and, thus, inhibit destructive acts. In accordance with this notion, Yamagishi and Sato (1986) found that people were more willing to contribute to the common good when working with friends.

Similarly, Mixon (1989) and Shorris (1984) have argued that the distance bureaucracies create between the individual and others may promote the localized development of object beliefs.

These localized, situational influences or beliefs should not be viewed simply as trivial transitory influences on the propensity for destructiveness. Darley (1992), for example, has argued that as individuals become involved with destructive situations through learning and role modelling, they come to accept potentially destructive beliefs, particularly in organizations stressing control. Further, the subsequent justification of these acts may have the effect of perpetuating these beliefs in others, leading to a climate supporting destructiveness.

The notion that situational exposure can, as a result of social learning, contribute to the individual's propensity for destructive acts suggests that the individual's propensity for destructive acts may change as a function of learning and development. In fact, there is reason to suspect that situational variables may lie at the root of the individual's propensity for destructive acts. Although the evidence compiled by DiLalla and Gottesman (1990) indicates that genetics may play a role in some forms of antisocial behavior, Thomas and Chess (1981) have shown that expression of these temperamental tendencies is a function of the child's early environment.

Loeber and Dishion (1983) found that certain parental behaviors were consistent and highly effective predictors of later delinquency and criminality. More specifically, parental behaviors reflecting a harsh, inconsistent disciplinary style and poor supervision of the child appear to be particularly important influences. This negative parental behavior pattern may be associated with more complex effects. Reid and Patterson (1989) argue that exposure to this kind of coercive parenting will teach children that coercion is a viable mechanism for goal attainment while engendering anxiety and outcome uncertainty. Thus, certain situational events may exert an influence on destructive acts by promoting the development of relevant belief, motives, and self-system concepts.

It is important to recognize that development does not cease in childhood. Instead, people develop and change throughout their lives in response to the developmental tasks confronting them (Caspi,

1987; Lerner & Tubman, 1989). This developmental change, however, does not occur in a vacuum. Instead, the events to which people are exposed and the way they change depend on the characteristics they bring to developmentally significant situations (Mumford, 1993; Mumford & Stokes, 1992). Thus, the influence of the person and their prior history on the course of development gives rise to coherent patterns of continuity and change (Mumford, Snell, & Hein, 1993).

This point is nicely illustrated in a recent study of moral development conducted by Gessner, O'Connor, Clifton, Connelly, and Mumford (1993). In this study, they administered Owens and Schoenfeldt's (1979) questionnaire intended to tap general developmental influences along with background data scales intended to measure object beliefs, negative beliefs about humanity, outcome uncertainty, and negative beliefs about outcomes. As noted earlier, the development of more complex, higher-order beliefs (e.g., object beliefs and negative beliefs about humanity) emerged from more basic beliefs (e.g., outcome uncertainty and negative beliefs about outcomes). More centrally, it was found that certain experiences occurring in earlier and later developmental periods contributed to the development of these beliefs. Thus, in early childhood, where beliefs about outcomes and outcome uncertainty are emerging, it was found that paternal warmth, traditional values, a lack of negative parental behaviors, parental role modelling, and parental structuring of the environment tended to prevent the development of these beliefs. In later years, where negative beliefs about humanity and object beliefs were emerging, it was found that institutional adaptation, nonparental social support, and parental direction prohibited the development of these beliefs. Thus, different events occurring in different developmental periods appear to influence the emergence of these beliefs.

Although the Gessner, O'Connor, Clifton, Connelly, and Mumford (1993) study focused on childhood and adolescence, there is good reason to suspect that similar developmental effects may be observed in older age groups. For example, the loss of significant others or failure to realize salient career goals may lead to outcome uncertainty, object beliefs, and the emergence of negative life themes in adulthood. In fact, Levinson's (1986) and Vaillant's (1977) studies of adult lives provide some indirect

support for these hypotheses. Along similar lines, it might be argued that job difficulties contributing to low self-efficacy might lead to uncertainty while serving to activate power motives (Mumford, Gessner, Connelly, O'Connor, & Clifton, 1993).

These observations indicate that certain experiences occurring in adulthood may influence the development of beliefs underlying the propensity for destructive acts. Further, it is clear that certain situational events may activate motives and beliefs influencing destructive behavior while, on occasion, acting to effect self-system variables, such as broader life goals. Unfortunately, relatively little direct evidence is available bearing on the nature of these variables. Accordingly, our second major goal in the present effort was to develop and validate a taxonomy of the situational variables influencing the propensity for destructive acts. These variables are held to contribute to the development or expression of the belief, motivational, and self-system constructs Mumford, O'Connor, Clifton, Gessner, Johnson, and Connelly (1993) found to represent key causal influences on the occurrence of these acts.

Method

Overview

To meet the goals sketched out above, a two-stage study was conducted. In the first phase of this study, an attempt was to be made to accrue additional validation evidence for the general causal model proposed by Mumford, O'Connor, Clifton, Gessner, Johnson, and Connelly (1993) by showing that this model could be extended to account for scores derived from overt and personality-based measures of integrity. Having provided this additional validation evidence, the belief, motivational, and self-system constructs included in this model of destructive behavior were to be used to identify the kind of situational variables that might contribute to the development and expression of destructive tendencies. Subsequently, an attempt was to be made to provide some initial validation evidence for this taxonomy of situational influences.

Phase One

Sample. The sample used in the first phase of this investigation contained two distinct subsamples. The first subsample, used to establish the ability of this model to account for scores on overt integrity tests, contained 292 undergraduates (70% female) attending a large southeastern university. The second subsample, used to establish the ability of this model to account for scores on the personality-based measures of integrity, contained approximately 400 undergraduates (65% female) attending a large southeastern university. In both cases, most sample members were in their sophomore or junior year. Their academic ability, as indicated by scores on the Scholastic Aptitude Test, lay near the national average for entering freshman. To establish the stability of the findings obtained in this study within each subsample, subjects were assigned to a validation and cross-validation group using a random two-thirds, one-thirds split.

Predictors. In both studies, the scales used to predict integrity test scores were the measures of the beliefs, motivational, and self-system constructs held to represent key influences of the propensity for destructive acts (Mumford, O'Connor, Clifton, Gessner, Johnson, and Connelly, 1993). Thus, the scales administered to subjects examined object beliefs, power motives, negative life themes, outcome uncertainty, fear, narcissism, and self-regulation. These constructs were measured using the background data scales developed by Mumford, Gessner, O'Connor, Connelly, and Clifton (1992).

Background data items present people with questions about their behavior and experiences in relatively discrete situations likely to have occurred earlier in their lives (Mumford & Owens, 1987). Thus, typical items might ask, *How many books have you read on your own time in the last year?* or *How often were you able to improve your grades after you did poorly on an exam?* In responding to these questions, people are asked to recall their past behavior and experience and then select the response option that best describes their typical behavior and experiences in the reference situations. Because background data measures examine prior behavior and experience, they can be used to assess a variety of constructs. However, these items provide a particularly attractive vehicle for measuring personality

constructs because they explicitly examine the behavioral preferences as individuals enter, act on, or react to situational demands (Mumford, Baughman, Threlfall, Uhlman, & Costanza, 1993). Further, these items have been shown to yield valid markers of various personality constructs that are highly robust with regard to faking and response sets (Kilcullen, White, Mark, Mumford, Mack, & Rigby, 1991; Shaffer, Saunders, & Owens, 1986).

The procedures recommended by Mumford and Stokes (1992) and Mumford, Uhlman, and Kilcullen (1992) were used to generate background data items for measuring the belief, motivational, and self-system constructs held to influence the propensity for destructive acts. Accordingly, the operational definition formulated for each construct was presented to a panel of eight psychologists. All panel members were doctoral candidates in industrial and organizational psychology who had participated in a two-week training program on the development of content- and construct-valid background data items (Mumford, Threlfall, & O'Connor, 1992). This training program illustrates the need to capture behavioral markers of a construct in various situations and examines the nature of good and bad items intended to mark a construct. Finally, item writers are given 20 hours of supervised practice in item generation and review.

To develop background data items for measuring the relevant belief, motivational, and self-system constructs, panel members were asked to review the operational definition and then think of situations to which most people would have been exposed in adolescence or young adulthood that would elicit behaviors marking the construct. They were then asked to generate questions reflecting differential expressions of this behavior. In all, panel members were asked to generate 10 to 15 items for each construct covering a range of prior behavior and experiences reflecting manifestations of this construct in a number of different and potentially memorable life situations. After this initial item-generation effort, panel members read their items aloud. These items were then reviewed by other panel members for construct relevance, social desirability, faking, controllability, and relativity with respect to social

stereotypes. The 15 to 30 best items identified in this review were used to measure the relevant belief, motivational, and self-system construct.

These items were administered to a tryout sample of 250 undergraduates to scale items and obtain some initial validation evidence for the construct validity of these scales. Table 1 summarized the reliability and validity data obtained in this initial validation effort while describing the nature of the items included in each scale. As may be seen, the resulting scales yielded internal consistency coefficients ranging from .42 to .75 while evidencing an interpretable pattern of relationships with other measures. Later studies by Mumford, O'Connor, Clifton, Gessner, Johnson, and Connelly (1993) and Kilcullen (1993) have shown that these scales will predict destructive managerial decisions in an "in-basket" exercise and poor performance on the part of civilian leadership in the U.S. Department of Defense.

Criteria

The criterion measures administered along with the background data scales to the first sample of subjects consisted of two overt measures of integrity. These measures were obtained from the publishing houses for use in this effort. In order to avoid priming, the measures were administered only after the subjects had completed the background data measures.

The first measure subjects were asked to complete was the Reid Report. The Reid Report is an overt integrity measure originally designed to detect dishonesty on lie detector tests. This instrument contains three sections. The first section asks a series of 83 agree-disagree questions concerned with integrity-related attitudes. Prior research by Cunningham and Ash (1988) has shown that responses to these attitudinal items reflect four factors: self-punitiveness and other punitiveness with regard to transgressions, and self-projection and other projection about intentions for dishonest behaviors; scores were provided for each of these factors as well as the empirically-keyed overall honesty score. Additionally, the items included in the Reid Report provided an index of the frequency with which subjects admitted illegal acts. Evidence for the reliability and validity of these scales has been provided by Ash (1984) and Cunningham and Ash (1988).

Table 1. Reliability and Validity Evidence for Beliefs, Motives, and Self System Constructs Predicting Destructiveness.

Scale	Example Items	Reliability and Validity Evidence
Object Beliefs	Surprised by how much people invest in friendships; did not do favors for people who could not return them; told white lies to get own way; viewed dealing with people as a game; has not gotten emotionally involved when dealing with people.	Alpha = .73 Correlated with: Machiavellianism (Christie & Geis, 1970) $r = .26$ Authoritarianism (Dillehay, 1978) $r = .15$
Power Motives	Frustrated when could not convince friends to adopt one's view; was important to be on the winning side; was willing to make a scene to get compliance from others; enjoyed making others do things; liked to have the last word.	Alpha = .68 Correlated with: Authoritarianism (Dillehay, 1978) $r = .43$ Exploitativeness (Emmons, 1987) $r = -.55$
Negative Life Themes	Enjoyed parties where people were really out of control; was not upset by media violence; spending time with family was not important; has not reflected upon one's purpose in life as much as others.	Alpha = .43 Correlated with: Love (Rubin, 1970) $r = -.31$ Liking (Rubin, 1970) $r = -.25$
Outcome Uncertainty	Often planned for things that never happened; wished things would slow down or remain the same; worried about the future; annoyed by people who claimed something was a sure thing; wished their were more guarantees in life.	Alpha = .71 Correlated with: Authoritarianism (Dillehay, 1978) $r = .51$ Anger (Spielberger, Jacobs, Russel, & Crane, 1983) $r = -.42$
Fear	Friends thought they worried too much; often agonized over decisions; often woke up at night for no apparent reason; was bothered by things that could go wrong when things were going well; had difficulty making decisions about the future.	Alpha = .75 Correlated with: Personal Adjustment (Owens & Schoenfeldt, 1979) $r = -.48$ Authoritarianism (Dillehay, 1978) $r = .42$
Narcissism	Tried to make self look good; was important to receive praise from others; spent alot of time worrying about appearance; did not talk about things not of interest to them; did not spend time with others whose opinions were different.	Alpha = .68 Correlated with: Exploitativeness (Emmons, 1987) $r = -.37$ Authoritarianism (Dillehay, 1978) $r = .35$
Self Regulation	Was hard on one's self; said the right thing at the right time; was important to identify own limitations; did not take long to fit in with an unfamiliar crowd; expressed opinions according to the situation at hand.	Alpha = .42 Correlated with: Academic Achievement (Owens & Schoenfeldt, 1979) $r = .20$ Liking (Rubin, 1970) $r = .26$

The second integrity test administered in this study was the London House Personnel Selection Inventory (PSI). The PSI, like the Reid Report, attempts to measure attitudes, values, and perceptions related to theft. The 40 self-description items included in this instrument to measure honesty have been shown by Harris and Sackett (1987) to reflect four factors: (1) thoughts about dishonest activities, (2) expected dishonest activities, (3) expectations about other peoples dishonest behavior, and (4) self-report personality items bearing on impulsiveness and reliability. In addition to this overall honesty score, the PSI also provides scores bearing on accuracy, validity, and theft admissions. Evidence for the reliability and validity of these scales has been provided by Jones and Terris (1983); Terris and Jones (1982); and Werner, Jones, and Steffy (1989).

In the second sample, subjects were asked to complete two personality-based measures of integrity after they had completed the background data scales intended to measure the belief, motivational, and self-system constructs held to influence the propensity for destructive acts. The first personality-based measure was the Minnesota Multiphasic Personality Inventory (MMPI). The MMPI contains 566 true-false self-descriptive items originally designed to identify clinical syndromes. Initially, the Lie scale included in the MMPI was developed to control for overt deception. The items included in this scale were selected based on expert judgment and are intended to reflect honesty as it applies to MMPI responses. These items appear to measure deception of others, and some evidence is available pointing to the validity of this scale as a measure of dishonesty (Rodgers, 1988). Butcher, Dahlstrom, Graham, Tellegen, and Kameron (1984) have provided evidence indicating that this scale yields internal consistency coefficients above .70.

In addition to the MMPI, subjects in our second subsample were asked to complete the California Psychological Inventory (CPI). The 480 items included in the CPI ask subjects whether they agree or disagree with certain self-descriptions. Although the CPI items display some similarity to the MMPI items, the items included in the CPI scales are intended to assess general personality traits rather than clinical syndromes. The Socialization scale was developed to distinguish between delinquents and

nondelinquents (Gough, 1948, 1957) and was applied as our principle CPI integrity measure based on Woolley and Hakistan's (1992) findings, indicating that socialization underlies scores on personality-based integrity tests. Additionally, CPI scores were obtained for delinquency and Gough's (1989) type-by-level classification held to reflect disintegrated, destructive behavioral tendencies. Evidence for the reliability and validity of these scales has been provided by Gough (1957, 1975, 1989). It is of note that the CPI type-by-level scale was obtained by Gough's (1989) taxonomy where Alphas, Betas, Gammas, and Deltas were coded 1, 2, 3, and 4, respectively, and then multiplied by the associated level score to obtain an index of destructive tendencies.

Analyses. Initially, scores on each scale derived from the overt and personality-based measures of integrity were correlated with scores on our background data scales measuring the beliefs, motivational, and self-system constructs held to influence the propensity for destructive acts. Subsequently, the general model developed by Mumford, O'Connor, Clifton, Gessner, Johnson, and Connelly (1993) was used to account for the relationship between the background data scales and the overall measures of honesty derived from the Reid Report and the PSI as well as the Lie scale of the MMPI and the Socialization, Delinquency, and Gough (type-by-level) scales of the CPI. Additionally, the model was used to account for scores on the theft-admissions scales provided by the Reid Report and PSI.

All of these analyses were carried out using a LISREL VI analyses of covariance structures. Due to the nature of the measures in use, an unweighted least-squares procedure was applied. Thus, the ability of this model to account for overt and personality-based measures of integrity as well as the theft measures was assessed in terms of the resulting goodness-of-fit indices and root-mean-square-residual terms along with the pattern of path coefficients obtained for each model. These models were then applied in the cross-validation sample to establish the stability of any resulting conclusions.

Phase Two

Sample. Having accrued some additional evidence for the impact of the belief, motivational, and self-system constructs on the propensity for destructive acts, an attempt was to be made in the next phase of this study to identify the situational variables contributing to the development and expression of these characteristics. The 292 students (70% female) who agreed to participate in this study were recruited from undergraduate psychology courses providing extra credit. Most sample members were in their sophomore or junior year. Their academic ability, as indicated by scores on the Scholastic Aptitude Test, lay near the national average for entering freshman. Again, sample members were assigned to a validation and cross-validation sample using a random two-thirds, one-thirds split.

Predictors. As part of this study, sample members were asked to complete two sets of background data items. The first background data questionnaire contained 208 items and was generated by Mumford, Gessner, O'Connor, Clifton, and Connelly (1991) to measure object beliefs, power motives, negative life themes, outcome uncertainty, fear, narcissism, and self-regulation. The items included in these scales were expressly developed to tap constructs underlying destructiveness using the rational scaling procedures recommended by Mumford and Stokes (1992) and Mumford, Uhlman, and Kilcullen (1992). The specific procedures used to construct these scales were described in greater detail earlier. It should be noted, however, that earlier studies by Gessner, O'Connor, Clifton, Connelly, and Mumford (1993) and Mumford, Gessner, Connelly, O'Connor, and Clifton (1993) provided evidence for both the reliability and the validity of these scales.

The principle predictors of concern in the present study were a set of background data or life history measures intended to assess exposure to situations that might contribute to development or expression of the belief, motivational, and self-system constructs held to influence the propensity for destructive acts. The 276 items included in this second background questionnaire were administered following the measures of the beliefs, motivational, and self-system constructs. A background data approach was used to assess these situational influences based on the logic that background data items can

be used to assess not only behavior in a situation, as was the case for the belief, motivational, and self-system scales, but also to assess exposure to developmentally-significant situations. For example, a situationally-based background data item might ask, *How many books were around your home while you were growing up?* or *Were you ever a member of a fraternity or sorority?* In the background data literature, these situational exposure items are typically subsumed under the rubric of developmental input variables. Owens and Schonefeldt (1979) have shown that these developmental inputs or situational exposures can be reliably assessed using five-point multiple-choice background data items. Further, these items have been shown to be valid predictors of a variety of criteria, including vocational interests and academic achievement (Mumford & Owens, 1982; Owens, 1976).

In the present study, we were expressly concerned with generating situational exposure items that would contribute to development or expression of the belief, motivational, and self-system constructs held to influence the propensity for destructive acts. To provide a substantive framework for item generation, a panel of five psychologists was asked to review the available literature on (a) destructive, antisocial, and criminal behavior; (b) developmental studies of antisocial tendencies and criminal behavior; and (c) studies examining environmental or situational influences on each of the belief, motivational, and self-system constructs. The literature was used as a basis for hypothesis generation and item development.

Once panel members had reviewed the extant literature, they were presented with the operational definition of a given belief, motivational, and self-system construct held to influence the propensity for destructive acts. They were then asked to generate 10 to 15 items intended to reflect differential exposure to situations that might contribute to the development of this characteristic and 10 to 15 items that might contribute to the expression of this characteristic as a function of situational demands. It is of note that these items were to be generated under two constraints. First, separate pools of items were to be developed for (a) recent college graduates, (b) people in young adulthood with some prior job experience, and (c) people in middle-age with substantial prior job experience. This constraint was imposed to take into account the age grading of situational exposure (Havinghurst, 1953; Reughten, 1973). Second, items

examining developmental influences within any given age group were required to examine relatively recent, as opposed to distal, developmental events. Thus, for middle age groups questions about divorce were considered appropriate but questions about early childhood experiences were not.

After these items had been generated, panel members were asked to read aloud the items generated for a given construct in a given age. Other panel members were then asked to review the proposed items for situational focus, fakeability, social desirability, and cultural stereotyping. Items that did not meet these criteria were rejected. Additionally, panel members were asked to review proposed items with an explicit focus on situational exposure as opposed to behaviors in the situation. Items that did not expressly focus on situational exposure were rejected. Table 2 presents some example items generated for each construct, while Appendix A presents all the items that survived this screening process.

Five-point multiple-choice response options were developed for each of these items. Item response options were typically designed to reflect the frequency or intensity of exposure to the situation presented in a given question. A five-point multiple-choice approach was used in scoring item responses because this format has been shown to enhance reliability (Owens, Glennon, & Albright, 1962).

Once the final pool of situational background data items had been formulated, an attempt was made to summarize the content of the items generated for each belief, motivational, and self-system construct. To summarize the content of these items, a variation of the rational content clustering procedures was employed (Mumford, O'Connor, Clifton, Connelly, & Zaccaro, 1993; Mumford & Owens, 1982; Schoenfeldt, 1989). Here, five psychologists, all doctoral students in industrial and organizational psychology, reviewed the content of individual items and grouped items together based on manifest similarity in item content. After each panel member had constructed and defined their initial set of content clusters, they reviewed the clusters in relation to those proposed by other panel members. A consensus definition was then reached concerning the four or five clusters which seemed to best summarize item content. Once these clusters had been defined, panel members were asked to reach a

**Table 2. Differential Exposure Items Developed for Beliefs, Motives and Self-System
Constructs Contributing to Destructive Acts**

Scale	Example Items
Object Beliefs	<ol style="list-style-type: none"> 1. How many close personal friends have you made at work? 2. How often have you felt like you had too much work to do? 3. How often have you been passed over for promotions? 4. How likely have you been to stay in touch with friends after you moved from an area? 5. How often have others in your office complained that they were treated unfairly by your boss? 6. How much competition is there among coworkers in your organization?
Need for Power	<ol style="list-style-type: none"> 1. How frequently have people in organizations to which you belong failed to get recognition for a job well done? 2. To what extent does the culture or environment at your school promoted getting ahead? 3. To what extent does your work organization have separate social activities for management and their employees? 4. How often have suggestions made by students been ignored by the university? 5. To what extent have individuals in your study group held back information your group needed? 6. To what extent is competition for scholarships fierce at your university?
Negative Life Themes	<ol style="list-style-type: none"> 1. To what extent have your friends expressed a cynical attitude towards society? 2. To what extent do coworkers hear from management only when there is a problem? 3. To what extent did your friends have brushes with the law? 4. How often has your house or car been broken into in your neighborhood? 5. To what extent did you have heros while you were growing up? 6. How often did parents or teachers praise your work as a child?
Outcome Uncertainty	<ol style="list-style-type: none"> 1. To what extent has financial uncertainty limited your ability to save money? 2. How often is the way your professor treats the class dependent on his/her mood? 3. To what extent has your schoolwork been affected by the problems of family members? 4. How often have you had large, unexpected financial expenses (e.g. health costs, care of others, etc.)? 5. In the past, how often have you been unable to work or go to school because of health reasons? 6. When growing up, how likely were your parents to "spring" important decisions on you without explanations?
Fear	<ol style="list-style-type: none"> 1. How often have you received unexpected criticism or praise? 2. How often have you been blamed for something someone else did? 3. How frequently have you been in situations in which it was impossible for anyone to keep up with the work? 4. How often have received medical or health evaluations that were troublesome? 5. How often have been in situations in which people are just interested in looking out for themselves? 6. How often have you been in situations in which nothing you did seemed to make a difference?
Narcissism	<ol style="list-style-type: none"> 1. How many special honors have you received in the last two years? 2. How often have you received special awards/commendations for work you have done? 3. How often have your friends boasted about their grades? 4. How well known or prominent was your family in the community in which you were raised? 5. How much attention did you receive from adults as a child? 6. To what extent has your workplace been an environment where discrimination occurs?
Self-Regulation	<ol style="list-style-type: none"> 1. How much have your bosses/peers stressed treating other people with respect? 2. How often have your friends criticized peers who didn't play by the rules? 3. How difficult has it been to tell what was expected of you at work? 4. How many times have you been asked to take responsibility for a specific piece of work? 5. How often have you seen coworkers take advantage of each other? 6. To what extent would you say that your friends have problems with drugs or alcohol?

consensus decision as to which of the content clusters best represented each item generated for a given construct. Table 3 describes the nature of these content clusters along with two or three illustrative items.

Criteria. After subjects had completed the background data items held to capture prior experiences influencing the development and expression of the constructs in adolescence and young adulthood, they were asked to complete the Reid Report and the PSI as well as the CPI. The honesty and theft scores obtained from the Reid Report and PSI, as well as Gough's (1989) socialization, delinquency, and type-by-level scales, served as criteria. Additionally, subjects were asked to work on a set of putative problem-solving exercises. The five problems presented in this exercise were drawn from Shorris (1981). These problem scenarios present a complex, ill-defined organizational situation, where a manager took actions that harmed other individuals in the organization (destructive interpersonal decisions) or the organization as a whole (destructive organizational decisions) as a result of the decision they made (Mumford, Gessner, Connelly, O'Connor, & Clifton, 1993). Table 4 describes the content of each of these problems.

These problem scenarios were used to accrue some initial validation evidence for the impact of the situational exposure items. Use of these problems in validating the situational exposure items was based on the following logic: All of these problems present complex, ill-defined situations that might be constructed in a number of different ways. Based on the observations of Gick and Holyoak (1983); Krietler and Krietler (1987); Mischel and Walters (1987); and Mumford, Reiter-Palmon, and Redmond (1990), it can be argued that the meaning people impose on ill-defined situations is dependent on their current life circumstances. Thus, with initial status on enduring beliefs, motives, and self-system constructs contributing to the development or expression of these constructs taken into account, people who have been exposed to situations contributing to the development or expression of these constructs should be more likely to interpret the problem in terms of these recent situational exposures and should, as a result of this interpretation or problem construction, be more likely to suggest alternative solutions that would result in harm to other individuals or the broader organization.

**Table 3. Content Clusters, Operational Definitions and Example Items
for Differential Exposure Background Data**

Construct	Content Clusters, Operational Definitions and Example Items
<p><u>OBJECT BELIEFS</u></p>	<p>Psychological Threat <u>Definition:</u> The degree to which a person's ego or vision of themselves is shaken or questioned due to others in their environment or the demands of their environment. 1. <i>How often have you been passed over for promotions?</i> 2. <i>To what extent have your professors pushed you into working at a frantic pace?</i></p> <p>Self Indulgence (Opportunity to gain) <u>Definition:</u> The degree to which slack in the system allows an individual opportunity for personal gain. 1. <i>How often have your friends compromised themselves in order to gain personally?</i> 2. <i>To what extent have you worked for organizations where the chances for promotion were slim?</i></p> <p>Low Constraints (Social Norms suspended) <u>Definition:</u> The degree to which a social environment lacks norms and procedures for interpersonal interactions; absence of stable or coherent social system. 1. <i>How often have others in your office complained that they were treated unfairly by your boss?</i> 2. <i>How often have you been asked to bend the rules?</i></p> <p>Social Distance/Marginality (Outgrouping) <u>Definition:</u> The degree to which an individual is alienated or separated from the center of organizational social activity; social pressures that encourage exclusion of a defined individual. 1. <i>How many close personal friends have you made at work?</i> 2. <i>Relative to others, to what extent does your living situation have a family atmosphere?</i></p>
<p><u>OUTCOME UNCERTAINTY</u></p>	<p>Scarcity of Resources <u>Definition:</u> Lack or absence of encouragement or reinforcement necessary for growth and development; typically economically based. 1. <i>To what extent has feedback from your teachers about your performance been consistent?</i> 2. <i>How often have you had large, unexpected financial expenses (e.g., health costs, care of others, etc.)?</i></p> <p>Instability of Resources <u>Definition:</u> Frequent unpredictable or uncontrollable events; fluctuation of resources necessary for growth and development. 1. <i>To what extent has financial uncertainty limited your ability to save money?</i> 2. <i>In the past, how often have you been unable to work or go to school because of health reasons?</i></p> <p>Personal/Developmental Trauma <u>Definition:</u> Noxious experiences that negatively influence the individual's subsequent development; personal experiences which are outside the realm of normal developmental stress (e.g., suicides, deaths of close family members, criminal victimization, accidents) 1. <i>Relative to others, how often have you had something of yours stolen or vandalized?</i> 2. <i>Have you ever had to care for an ill person for an extended period of time?</i></p> <p>Threat to Self <u>Definition:</u> The degree to which an individual is subject to physical threat; environmental danger. 1. <i>When you were growing up, how often were you aware of people you knew who lost their jobs?</i> 2. <i>When growing up, how worried did your parents seem about money, jobs or the state of the local economy?</i></p>

Table 3. (Continued)

Construct	Content Clusters, Operational Definitions and Example Items
<p><u>NEGATIVE LIVE THEMES</u></p>	<p>Negative Role Models <u>Definition:</u> Exposure to inadequate or detrimental individuals in authority roles. 1. <i>To what extent do coworkers hear from management only when there is a problem?</i> 2. <i>Have you known of any professors who had to leave your university due to improprieties?</i></p> <p>Exposure to Negative Social Conditions <u>Definition:</u> Exposure to social conditions or experiences causing stress or threat to physical or psychological being; social forces or conditions not conducive to individual development. 1. <i>How often have you witnessed verbal or physical violence?</i> 2. <i>How likely were your high school friends to get into trouble?</i></p> <p>Scarcity of Rewards and Reinforcement <u>Definition:</u> Lack or absence of encouragement or reinforcement necessary for growth and development; typically material or psychological in nature. 1. <i>How often did parents or teachers praise your work as a child?</i> 2. <i>How much did your parents encourage having your friends over to the house?</i></p> <p>Personal/Developmental Trauma <u>Definition:</u> Noxious experiences that negatively influence the individual's subsequent development; personal experiences which are outside the realm of normal developmental stress (e.g., suicides, deaths of close family members, criminal victimization, accidents) 1. <i>How often has your house or car been broken into in your neighborhood?</i> 2. <i>Have you ever had a close friend who committed or attempted suicide?</i></p>
<p><u>SELF REGULATION</u></p>	<p>Lack of Social Structure <u>Definition:</u> The degree to which a social environment lacks norms and procedures for interpersonal interactions; absence of stable or coherent social system. 1. <i>To what extent did your teachers enforce the absenteeism policy?</i> 2. <i>How strictly enforced is the honor code at your school?</i></p> <p>Violation of Contracts <u>Definition:</u> Exposure to events or individuals intentionally and directly in violation of societal norms and contracts; social conditions which encourage breaching or verbal or written contracts. 1. <i>How often have your friends criticized peers who didn't play by the rules?</i> 2. <i>How many of your friends have cheated on a boy/girlfriend?</i></p> <p>Ambiguity of Resources <u>Definition:</u> Lack of procedures or routines for allocation of resources needed for performance; lack of sustained external resources. 1. <i>How often have you had a professor who did not clearly explain assignments?</i> 2. <i>To what extent have student organizations had to fight to get resources?</i></p> <p>Exposure to Negative Social Conditions <u>Definition:</u> Exposure to social conditions or experiences causing stress or threat to physical or psychological being; social forces or conditions not conducive to individual development. 1. <i>To what extent were your parents supportive of decisions you made while growing up?</i> 2. <i>To what extent were your parents involved in a legal dispute when you were young?</i></p>

Table 3. (Continued)

Construct	Content Clusters, Operational Definitions and Example Items
<u>NARCISSISM</u>	<p>Career/Professional Development <u>Definition:</u> Occurrence of problems or events outside experiences typical to a given job level; presence or lack of influences that encourage or facilitate career development. 1. <i>When growing up, how likely were your parents to remind you that your family had different standards than other people?</i> 2. <i>How often were you placed in special groups, i.e., gifted/talented, singing groups, when you were growing up?</i></p> <p>Threat to Self <u>Definition:</u> The degree to which an individual is subject to physical threat; environmental danger. 1. <i>To what extent is your workplace an environment where discrimination occurs?</i> 2. <i>How often have other people used their status or position to deny you something you wanted?</i></p> <p>Personal/Developmental Trauma <u>Definition:</u> Noxious experiences that negatively influence the individual's subsequent development; personal experiences which are outside the realm of normal developmental stress (e.g., suicides, deaths of close family members, criminal victimization, accidents) 1. <i>When you were growing up, how often were special opportunities opened up to you because of your wealth?</i> 2. <i>How many of the colleges to which you applied did you get in?</i></p> <p>Social Status <u>Definition:</u> Economic or professional level of achievement. 1. <i>How much did your family stress the importance of getting a job that allowed you to earn a lot of money?</i> 2. <i>To what extent was your family considered important by the community in which you lived?</i></p>
<u>NEED FOR POWER</u>	<p>Scarcity of Resources <u>Definition:</u> Lack or absence of encouragement or reinforcement necessary for growth and development; typically economically based. 1. <i>How often have you or your friends worried about dropping out of school because of cutbacks in financial aid?</i> 2. <i>How often have you failed to complete a task on time because of bottlenecks in resources?</i></p> <p>Threat to Self <u>Definition:</u> The degree to which an individual is subject to physical threat; environmental danger. 1. <i>To what extent does your university tolerate professors who verbally abuse students?</i> 2. <i>To what extent is competition for scholarships fierce at your university?</i></p> <p>Status/Relations <u>Definition:</u> Systems sensitivity to socially prescribed roles and relations. 1. <i>How often do people in different majors talk with one another?</i> 2. <i>To what extent does your organization have separate social activities for management and their employees?</i></p> <p>Ambiguity (Organizational Generated) <u>Definition:</u> Mixed cues or signals about organizational direction; frequency of subjectively based organizational events. 1. <i>How often has it seemed that the best way to get ahead at your university is by knowing the right people?</i> 2. <i>How frequently have people in organizations to which you belong failed to get recognition for a job well done?</i></p>

Table 3. (Continued)

Construct	Content Clusters, Operational Definitions and Example Items
FEAR	<p>Threat to Self <u>Definition:</u> The degree to which an individual is subject to physical threat; environmental danger. 1. <i>How rough was the neighborhood in which you grew up?</i> 2. <i>To what extent do cliques exist at your school?</i></p> <p>Personal/Developmental Trauma <u>Definition:</u> Noxious experiences that negatively influence the individual's subsequent development; personal experiences which are outside the realm of normal developmental stress (e.g., suicides, deaths of close family members, criminal victimization, accidents) 1. <i>Have you ever experienced any serious illnesses or life threatening disease?</i> 2. <i>How often have you received medical or health evaluations that were troublesome?</i></p> <p>Demands for Change/Ambiguity of Resources <u>Definition:</u> Environmental events influencing the organization's goals and expectations. 1. <i>How often have the goals/objectives of a group project you were working on been changed by the person who was running it?</i> 2. <i>To what extent have your teachers place unrealistic demands on people in classes?</i></p> <p>Scarcity of Resources <u>Definition:</u> Lack or absence of encouragement or reinforcement necessary for growth and development; typically economically based. 1. <i>How frequently have you been in situations in which it was impossible for anyone to keep up with the work?</i> 2. <i>To what extent did your family have financial worries when you were growing up?</i></p>

Table 4. Problem Scenarios (Shorris, 1981)

Scenario 1

The decision made ten years ago regarding the outer cover of electrical cables was coming back to haunt the company. At that time, in order to produce the cable cheaply, a very thin covering had been added even though some lab tests suggested a need for additional thickness in certain circumstances. However, recently, the company had determined that refitting the cables could be done cheaply. The plant engineer had been sent out on a public relations mission to convince the customers and local government that the company would do the refitting.

Recently a federal agency had announced another regulation. This regulation designated new energy efficiency standards which could cost the company tens of millions of dollars to implement, not to mention an immediate layoff of 3,500 people to offset the financial burden on the company, with the potential for rising to 50,000 industry-wide. Due to the company's costs for redesigning products to meet the new efficiency standards, which would be passed on to the consumer, the cost of the standards to the consumers would be double what they would be more than the savings due to increased energy efficiency.

The current strategy of the Executive Vice President is to trade the cover thickness legislation for the energy efficiency standards. That's where the plant manager came in. As an expert, he was making public appearances, praising the virtues of increasing cable cover thickness.

But the plant manager knew that the energy efficiency standards were a good idea. After all, he had written a paper on electromagnetic field generation. He had won several prestigious engineering awards. The energy efficiency standards made economic and engineering sense. But, he wondered if he was naive. He wondered if he would be back in five years pushing for the energy efficiency standards.

1. Why did this situation occur?
2. What was the central mistake made by the plant manager?
3. What would you do as the plant manager in this situation?

Scenario 2

A new salesman has been turning in very large expense account receipts. The receipts' total were greater than the travel and entertainment (T&E) budget for the entire office. What the salesman was spending the money on is questionable due to the clients he entertained; federal officials, senators and congressman. None of these people did business directly with this division which sells machinery to manufacturing and parts suppliers.

The Comptroller of the company alerted the salesman's boss, the Divisional Manager (DM), that the division was targeted for management review due to its T&E costs of 173 percent of budget. The Comptroller suggested that the DM address a written report explaining the expenses to the Senior President in charge of marketing and sales.

The DM remembered that when the salesman responsible for the overspending came to work for his division the salesman had informed him that he reported directly to the vice chairman. He also said he was doing something special for this vice chairman and consequentially would need a large expense account. The DM told him he would still have to meet his sales goals. The salesman said that may be impossible and that if the DM had a problem with it he should go to the vice chairman. The DM never spoke with the Vice Chairman.

The DM wonders whether to explain the overspending in a report. He wonders if the report would be subpoenaed due to the questionable nature of the expenses. He wonders if he should just take the heat for the overexpenditure.

1. Why did this situation occur?
2. What was the central mistake made by the Divisional Manager?
3. What would you do as Divisional Manager in this situation?

Scenario 3

The Board of Directors made the decision to revise the entire sales effort of the company. Instead of depending on a few large accounts, a risky strategy liable to produce large swings in revenue, the company would move to support many small accounts. Salespeople were instructed to devote no more than 10 percent of their time to managing the large accounts that they had been servicing for more than 20 years, and to put the rest of their time into getting new accounts.

The first few months of the program had been moderately successful. New accounts were brought in, although not in anticipated numbers. However, sales reports indicated trouble and several large insurance brokers and the risk managers of two of their largest clients had expressed dissatisfaction with the speed of the company's paperwork and the general inattentiveness of the salespeople.

At the first sign of trouble, the director of sales had gone to the marketing vice-president to discuss the situation. The policy remained unchanged, and the complaints from the old clients grew increasingly stronger. Within a month, three

Table 4. Problem Scenarios (Shorris, 1981) (Continued)

of the companies' oldest and largest accounts had moved their business to New York companies. Another went with a British company. Two more went to Omaha. Although several small accounts had come in, revenue projections for the coming year were down by 16 percent.

The director of sales needed to take action. He was in constant disagreement with the vice president of marketing over the new sales program that wasn't working. He didn't have enough money to pay his staff of thirty-eight salespeople for the next year. He thought about going to the chief executive officer directly with his concerns. He thought about retiring early and moving with his wife to a tropical island. He thought about firing the seven salespeople who had previously serviced the large accounts that had been lost.

1. Why did this situation occur?
2. What was the central mistake made by the sales director?
3. What would you do as sales director in this situation?

Scenario 4

The chairman of the company was a year from retirement and had hoped that he would not be faced with the decision that he now had to make. The executive vice president had been given three years to turn things around in his division yet sales were slowly declining. And there was no doubt that the man was dedicated and loyal, coming up through the ranks, making sacrifices and causing hardship on his family. There is no question that the man had tried his best.

A board meeting was convened to decide the fate of the executive vice president. Asking for a 53 year old vice president's resignation directly could make the company look bad. People would ask questions. On the other hand, he could not stay where he was. Sure, things were status quo for the division. But he was brought in because he was supposed to grow the company. He had definitely been a disappointment. He was also too visible to demote. The man worked hard, but we need results. Loyalty does not buy security.

After discussion, it was decided to transfer the vice president to an overseas position in Bogota, Columbia where he would have no direct responsibilities. The chairman, who had known the executive vice president for 23 years set up an appointment with the vice president. He knew that the man had no option--he would either transfer or would have to leave the company.

1. Why did this situation occur?
2. Do you think that the chairman is being reasonable? Why or why not?
3. What would you do if you were in the chairman's position?

Scenario 5

The engineer and the public relations man had known each other for many years. The engineer was very careful to examine problems in great detail making extensive notes on any project or design specification. The public relations man designed everything for short attention spans: generalized phrases and "sound bites" pitched at a seventh grade reading level. They always had an amiable adversarial relationship: one who talked in equations the other who talked in monosyllables.

As time passed, the engineer grew to have greater importance in the company eventually becoming president. The public relations man became vice president of Public Relations and Communications. The public relations man put together a new set of press releases on a new line of electrical motors: clear, concise, and to the point. Guaranteed to make the bottom line proud. This will definitely impress the new president.

A short time later, the president called the public relations man into his office. I've just read the new Press releases on these new electric motors and they are too simplistic. These are not going to work. The president's face darkened. We have never seen eye to eye. I really don't understand the function Public Relations plays in this company. If a product is well designed, it sells. We advertise primarily in electrical products magazines where people expect to read technical specifications. We don't have to spoon feed them.

"That's true," replied the public relations man, "but we need to expand markets." We can only do that by writing simply so that managers and sales people understand. I don't see it that way, replied the president. We have a solid base of highly knowledgeable customers. In my view, our Public Relations is out of step with the rest of the company.

Table 4. Problem Scenarios (Shorris, 1981) (Continued)

I have some bad news for you, the president continued. I'm bringing in a new vice president for public relations and communications. One who talks my language. He has an engineering degree. I'm sure that you can find gainful employment in a less technical industry.

The public relations man sat stunned, wondering what he had done wrong.

1. Why did this situation occur?
2. Do you think that the president is making the right decision?
3. Would you handle the situation differently? How?

Accordingly, in suggesting potential solutions to these problems, subjects were asked to write a brief, one-paragraph answer for each of three questions. The first two questions were intended to identify the situational variables that subjects believed to be key issues defining the nature of the problem. Thus, they were asked to write down (1) why this situation occurred in the first place, and (2) indicate whether or not and why or why not the principal actor in the problem scenario had selected an appropriate course of action. Once they had answered these questions, subjects were asked to write a brief, one-paragraph answer to the question, *What would you do in this situation?*

Subjects' answers to the first two questions were presented to a panel of nine raters divided into groups of three. Subjects' answers were randomly allocated to one of the three groups for rating. In order to rate the responses, group members were asked to read through a subject's answers to the first two questions and identify the situational variables held to be important in understanding the nature of the problem. In evaluating the responses to the third question, *What would you do in this situation?*, judges were asked to read through subjects' responses to the third question. They were then asked to rate on a five-point scale the extent to which the proposed solution would result in (1) short-term harm to others, (2) long-term harm to others, (3) short-term harm to the organization, (4) long-term harm to the organization, (5) short-term benefit to others, (6) long-term benefit to others, (7) short-term benefit to the organization, (8) long-term benefit to the organization, (9) integrity manifested in the solution, and (10) greed as manifested in the solution. A weighted sum of judges' ratings on each of these scales was used to form an overall index of destructiveness. The internal agreement coefficient obtained was .84.

Analyses. Initially, scores of all of the situational items developed for a given construct were summed, and an internal consistency analysis was used to develop construct-based situational scales tapping relevant environmental influences on the development or expression of the attribute. Additionally, the reliability of the items included in each of these scales was established. Next, the full pool of situationally-based background data items was factored using an image solution and an oblique rotation. Prior to this factoring, however, situational items were factored within a given domain (e.g.,

object beliefs) to control for the item-to-subject ratio. Scores on the three to six factors obtained for each domain alone were factored again to identify a general set of dimensions accounting for scores on the situational items developed for each belief, motivational, and self-system construct. The resulting item loadings were used to establish the content of each factor. Scores on each of these factors were then obtained and their reliability established. The resulting factor scores provided a second empirical strategy for scoring responses to the situational items to accompany the construct-based scales.

Scores on the construct-based scales and the factorial scales derived from the situational items were then correlated with the behaviorally-based measures of object beliefs, power motives, negative life themes, outcome uncertainty, fear, narcissism, and self-regulation. Additionally, these construct-based situational scales and the factorial scales were correlated with the index of overall harm done by the decisions. These analyses were, of course, replicated in the cross-validation sample.

In the final set of analyses, scores on the index of overall harm, honesty, theft, socialization, and type-by-level scales were regressed on the factorial scales and construct scales for assessing situational influences. Additionally, these criteria were also used in a set of blocked regression analyses, where scores on the behaviorally-based measures of the belief, motivational, and self-system constructs were entered first, followed by scores on either the construct-based situational measures or the factorial-based measures of situational influences. The multiple *R*s obtained in these analyses were subsequently cross-validated by applying the resulting regression weights in the hold-out sample. It was anticipated that these analyses would provide some initial guidance for the unique impact of situational influences on destructive acts.

Results

Phase One

Personality. To assess the ability of the model to account for personality-based measures of integrity, the background data scales developed by Mumford, Gessner, O'Connor, Clifton, and Connelly

(1992) were used to mark the belief, motivational, and self-system constructs held to influence the propensity for destructive acts. These measures were then used along with the general situational model developed by Mumford, O'Connor, Clifton, Gessner, Johnson, and Connelly (1993) to account for scores on various personality-based measures of integrity.

When this model was used to account for scores on Gough's (1989) socialization scale, the resulting goodness-of-fit index was .98, while the associated root-mean-square-residual was .06. Upon cross-validation, the fit index shrunk to .96, while the associated root-mean-square-residual term increased to .09. Apparently, this model provided a stable, effective description of the forces giving rise to scores on Gough's (1989) socialization scale. In fact, the multiple *R* obtained when the belief, motivational, and self-system constructs were used to predict socialization scores was .41 in the validation sample and .40 in the cross-validation sample.

The path coefficients obtained in this modelling effort are presented in Figure 6. As may be seen, the nature of this model is quite similar to the general model developed by Mumford, O'Connor, Clifton, Gessner, Johnson, and Connelly (1993). Again, it was found that narcissism influenced outcome uncertainty ($b = .34$) and power motives ($b = .31$), just as fear led to outcome uncertainty ($b = .50$) while inhibiting expression of power motives ($b = -.09$). Outcome uncertainty tended, by virtue of self-protection needs, to activate power motives ($b = .46$), and power motives, in turn, contributed to the development of object beliefs ($b = .49$), indicating that as people manipulate others, they come to believe they can be used as tools. Self-regulation tended to inhibit the development of object beliefs ($b = -.06$), but object beliefs and the associated lack of regard for others led to the expression of negative life themes ($b = .24$).

These findings are noteworthy in the sense that they provide further confirmatory evidence for the model developed by Mumford, O'Connor, Clifton, Gessner, Johnson, and Connelly (1993). More centrally, however, the causal paths obtained in accounting for socialization were consistent with the results obtained in earlier studies examining greed, dishonesty, a lack of commitment to others, and

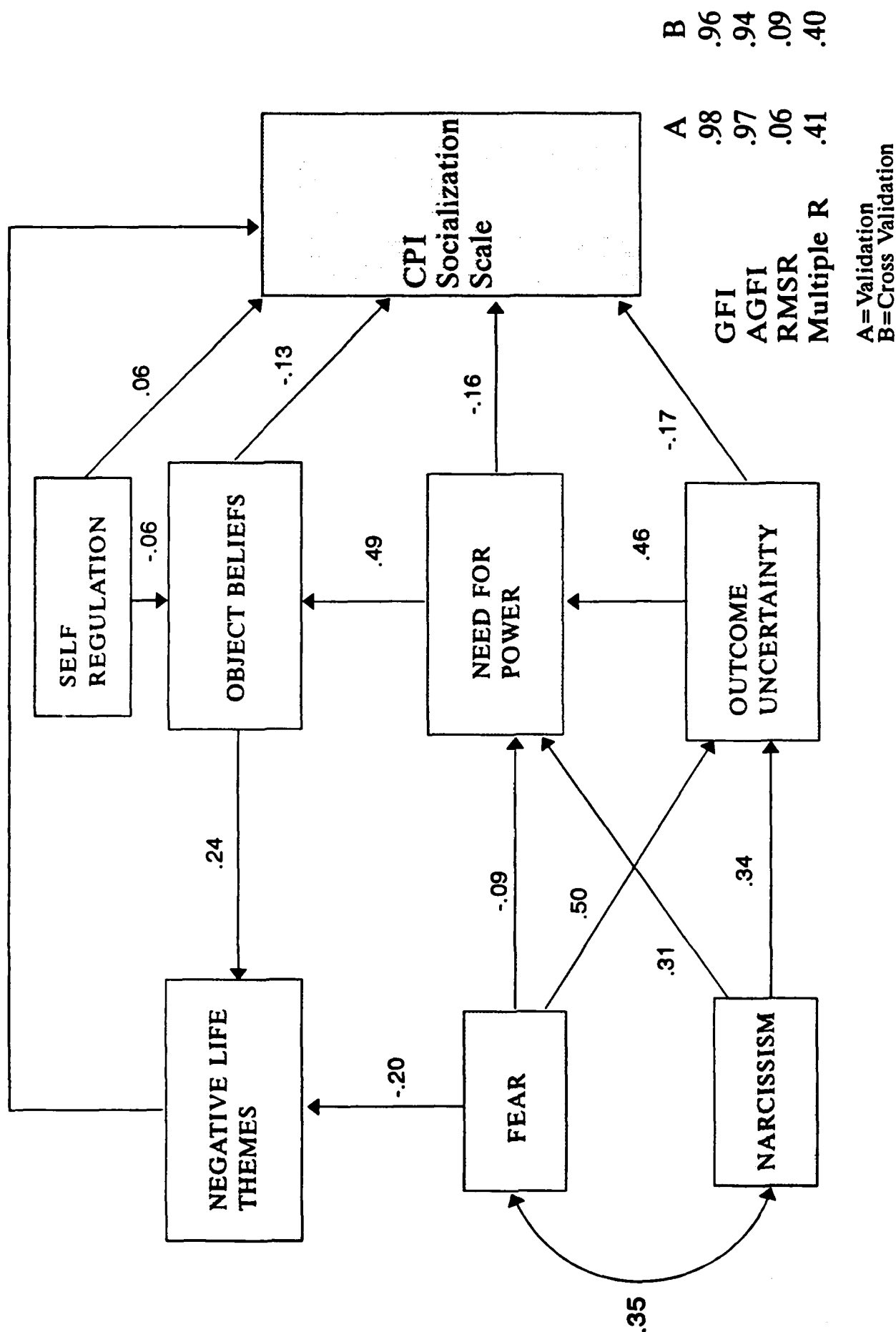


Figure 6. General Model Predicting CPI Socialization Scale.

destructive managerial decisions. Again, outcome uncertainty ($b = -.17$), power motives ($b = -.16$), object beliefs ($b = -.13$), and negative life themes ($b = -.11$) inhibited socialization. The poor socialization is apparently linked to the development of a destructive, antisocial world view. In this regard, however, the positive influence of self-regulation on socialization scores ($b = .06$) is not surprising. While prior research by Mumford, Gessner, Connelly, O'Connor, and Clifton (1993) has shown that destructive individuals may tend to consciously mask these tendencies, leading to a need for controlled social behavior, some degree of self-regulation is anticipated for an individual to appear to be socialized.

Figure 7 presents the results obtained when this model was used to account for scores on Gough's CPI Delinquency scale. The goodness-of-fit was .99, while the associated root-mean-square-residual term was .06. Upon cross-validation, the fit indices shrank to .95, while the residual term increased to .10. Thus, it appears that this model could also be used to account for delinquent tendencies. Some support for this conclusion may be obtained by considering the nature of the variables exerting direct effects on delinquency and the resulting multiple correlations. It was found that negative life themes ($b = .06$), object beliefs ($b = .14$), power motives ($b = .19$), and outcome uncertainty ($b = .18$) contributed to delinquency. Self-regulation inhibited delinquency ($b = -.03$). This finding may be again attributed to the sensitivity of destructive individuals to social norms. These paths provided a multiple R of .42 in the validation sample which shrank to .41 upon cross-validation.

The third and final measure drawn from the CPI was based on Gough's theory that people's pattern of scores on the CPI can be described in terms of the general variable distinguished on the dimensions of introversion-extroversion and norm-accepting versus norm-rejecting. Distinction leads to the Alpha, Beta, Delta, Gamma types with extraverted, norm-rejecting types being viewed as particularly prone to destructive acts. Particularly when this personality trend is coupled with a low-level of maturity. Thus, to develop the type-by-level scales Alphas, Betas, Gammas, and Deltas were scored 1, 2, 3, and

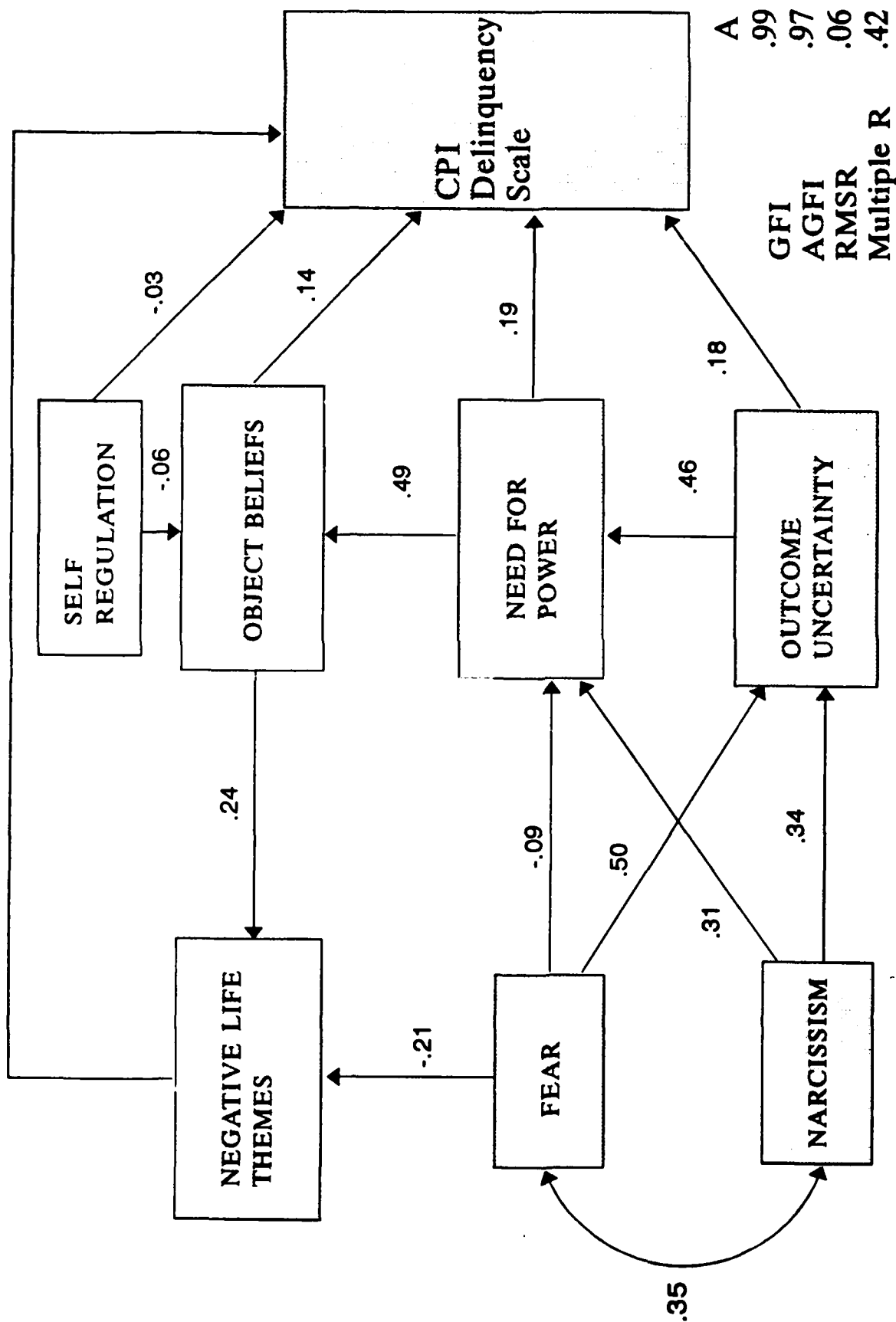


Figure 7. General Model Predicting CPI Delinquency Scale.

4, and these type scores were multiplied by maturity level, with low maturity being coded as a high score with respect to destructiveness.

Figure 8 presents the model obtained when the destructiveness constructs were used to account for type-by-level scores. More specifically, immature, norm-rejecting, extraverted tendencies were held to be linked to destructive acts. Application of this model to the type-by-level scores resulted in an unadjusted fit index of .98 and a residual term of .06. The destructive multiple correlation for predicting type-by-level scores was .17 in both the validation and cross-validation sample. The associated residual term increased to .07. Here, it was found that outcome uncertainty ($b = .17$) contributed to the expression of immature norm rejecting, while power motives ($b = -.12$) inhibited these tendencies. Apparently, scores on this scale are heavily dependent on maturity.

In addition to the CPI indices of integrity, subjects were also asked to complete the MMPI Lie scale. Figure 9 presents the model obtained when the belief, motivational, and self-system constructs were used to account for scores on the Lie scale. In the validation sample, this model yielded a fit index of .98 with a residual term of .06. The multiple correlation obtained when the relevant belief, motivational, and self-system constructs were used to account for lie scores was .21 in both the validation and cross-validation samples. Upon cross-validation, the fit index shrank to .96, while the associated residual term increased to .08. It was found that outcome uncertainty ($b = -.12$) and negative life themes ($b = -.07$) were the best predictors of scores on the MMPI Lie scale.

Taken as a whole, the results obtained for the personality-based measures of integrity indicated that the general model of destructiveness proposed by Mumford, O'Connor, Clifton, Gessner, Johnson, and Connelly (1993) can be used to describe these personality-based measures of integrity. In fact, it appears that scores on the CPI socialization and delinquency scales as well as the MMPI Lie scale are determined by the same core constructs held to influence the propensity for destructive acts, with object beliefs, negative life themes, power motives, and outcome uncertainty representing important influences in the manifestation of destructive tendencies on personality-based measures. The exception to this rule

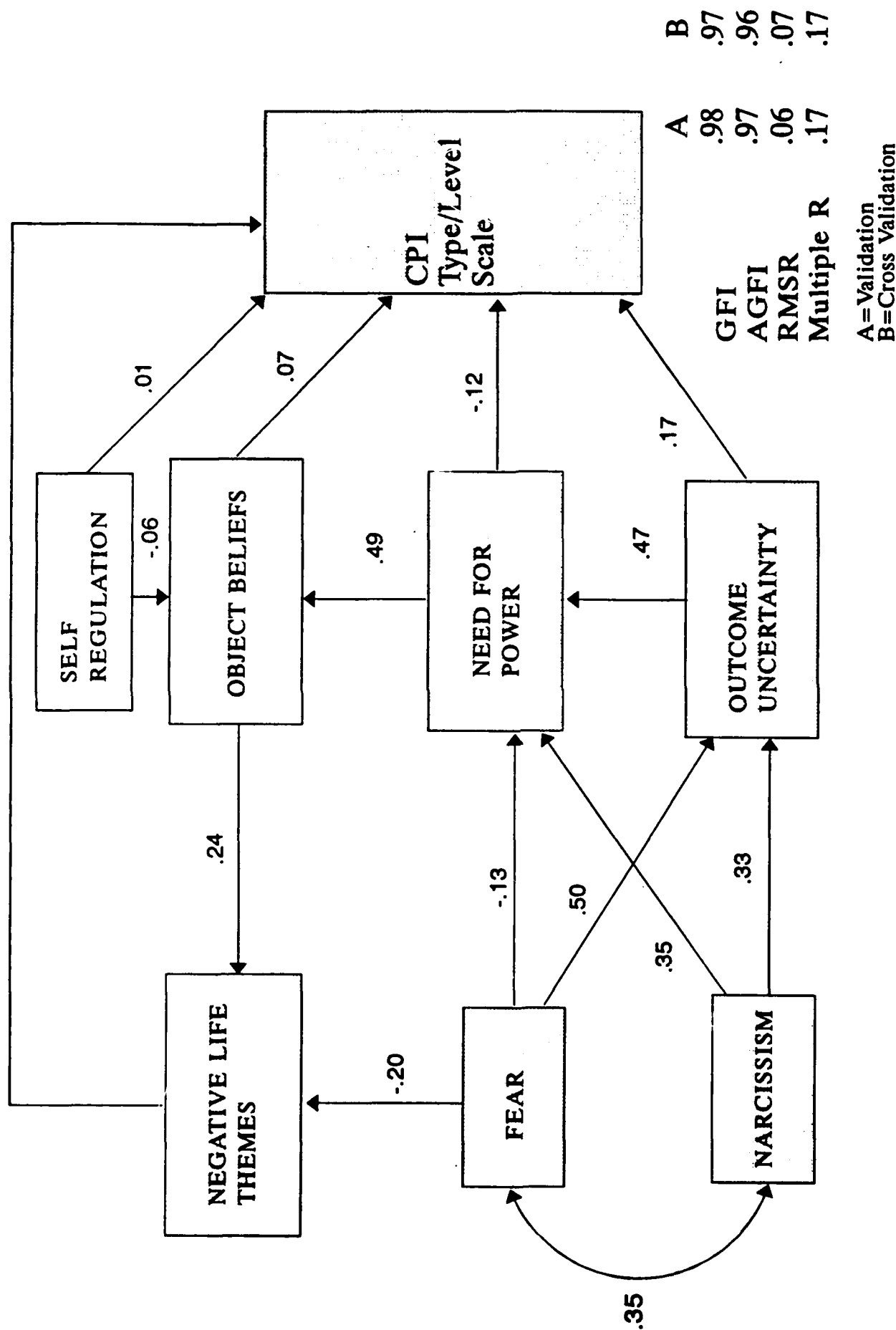


Figure 8. General Model Predicting CPI Type/Level Scale.

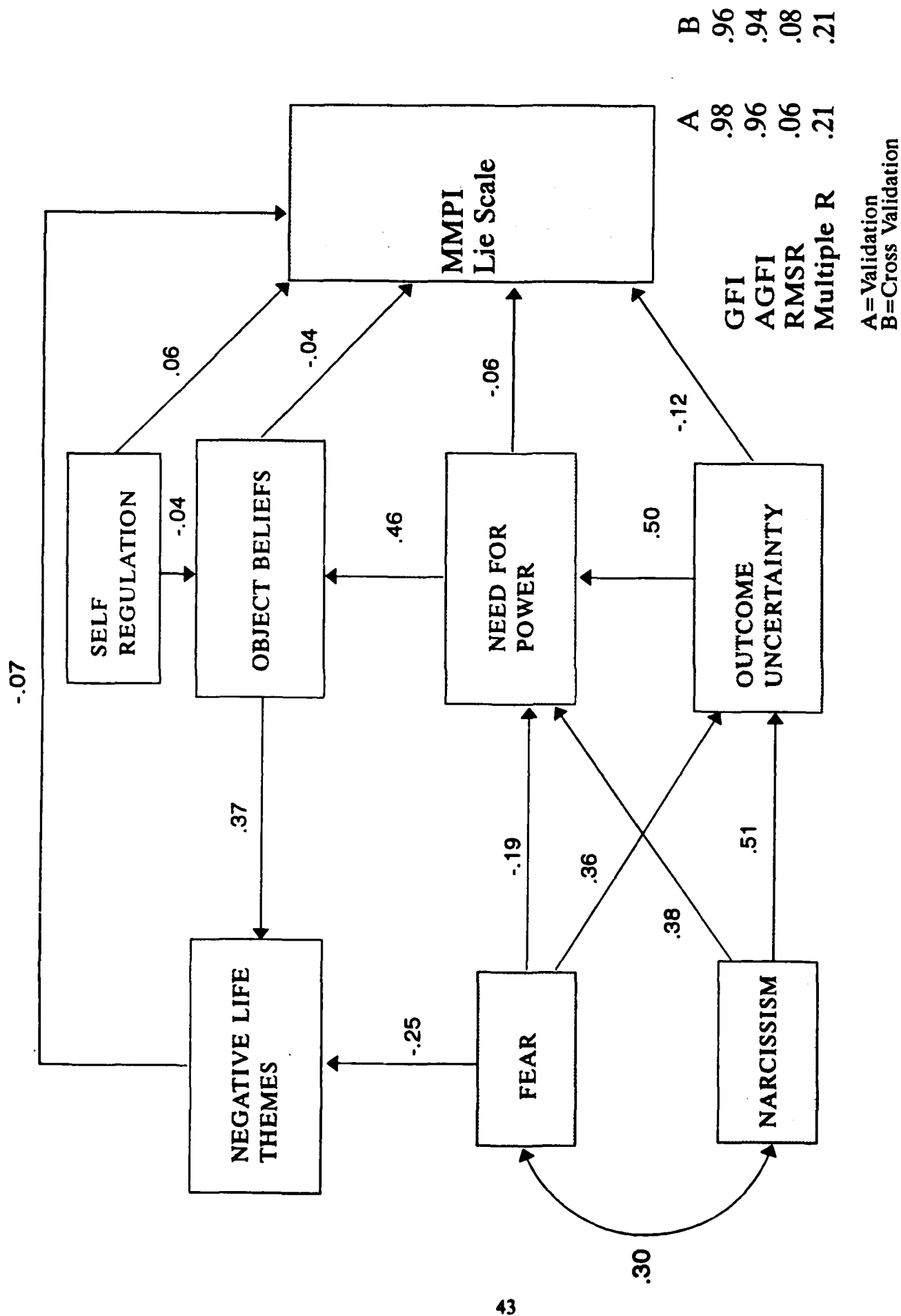


Figure 9. General Model Predicting MMPI Lie Scale.

of thumb was Gough's (1989) type-by-level index, where, due to the impact of maturity on scale scores, outcome uncertainty and power motives were found to be particularly effective predictors.

Honesty. In addition to these personality-based measures of integrity, subjects were also asked to complete two attitudinally-based measures of integrity: the Reid Report and the PSI. Figure 10 presents the model obtained when the belief, motivational and self-system constructs were used to account for integrity-related attitudes using PSI raw scores. As may be seen, the resulting model yielded an initial fit index of .99 and a residual term of .05 in the validation sample. In the cross-validation sample, the associated goodness-of-fit index was .95, while the residual term was .10. When the variables held to account for destructive acts were used to account for integrity, a multiple correlation of .34 was obtained which increased slightly to .35 upon cross-validation.

In the case of the PSI, the variables found to effect attitudinal manifestations of integrity were consistent with the results obtained in prior studies of destructive behavior. Here object beliefs ($b = -.12$), power motives ($b = -.12$), and outcome uncertainty ($b = -.18$) were found to lead to attitudes indicating a lack of integrity. Further, negative life themes ($b = -.10$) and self regulation ($b = -.04$) exerted weaker negative influences on honesty-related attitudes.

The results obtained when the belief, motivational, and self-system constructs were used to account for the integrity-related attitudes as measured by the Reid Report are presented in Figure 11. In the validation sample, the resulting goodness-of-fit index was .99, while the associated residual term was .05. Upon cross-validation, the goodness-of-fit index shrank to .96, while the residual term increased to .09. These fit indices, however, appear to be driven by the relationships among the belief, motivational, and self-system constructs, since the paths specified in this model were not highly effective predictors of integrity or honesty attitudes as measured by the Reid Report. In the validation sample, this model yielded a multiple R of .22 when used to predict integrity-related attitudes and remained at .22 upon cross-validation.

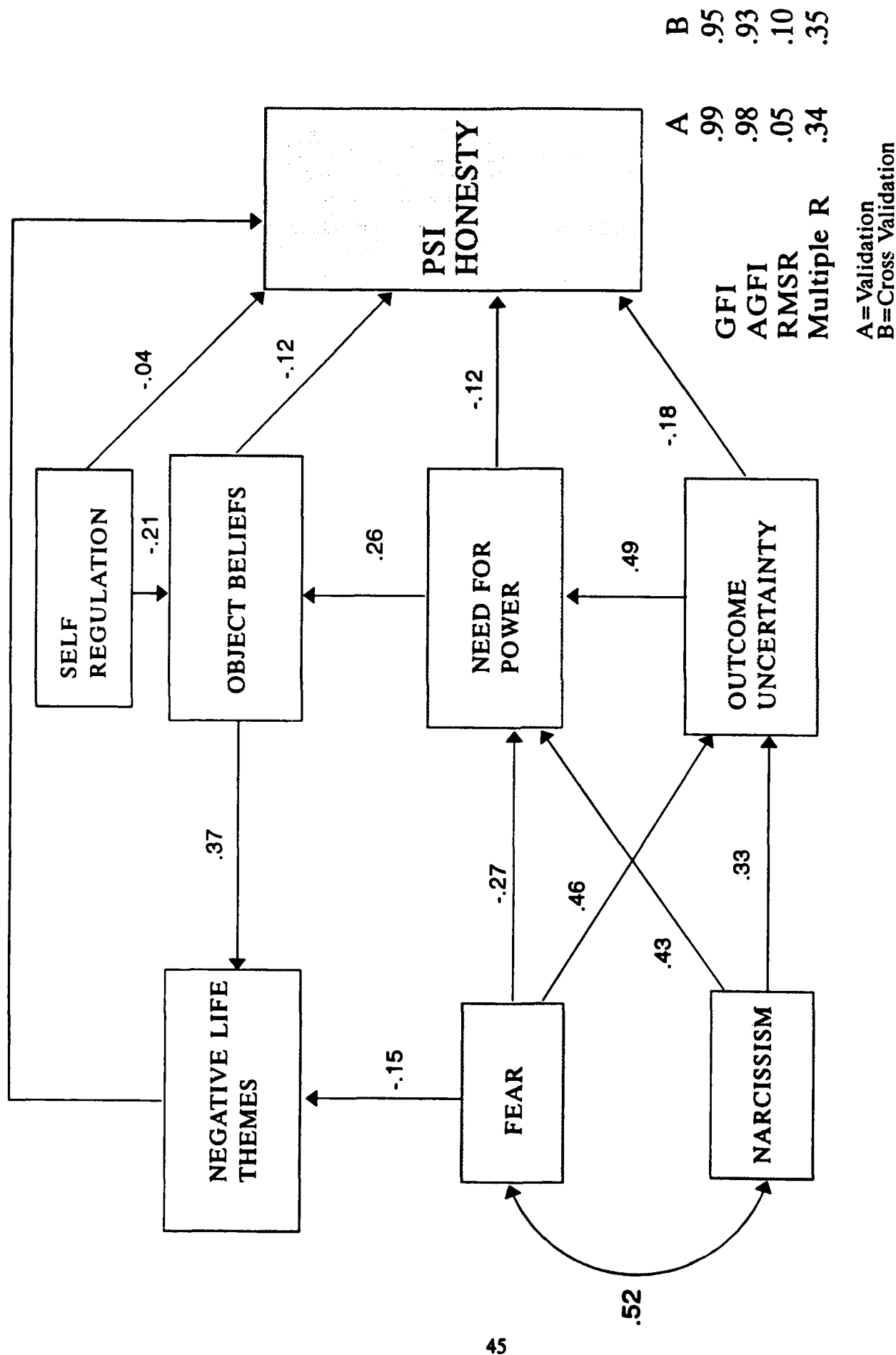


Figure 10. General Model Predicting PSI Honesty Scale.

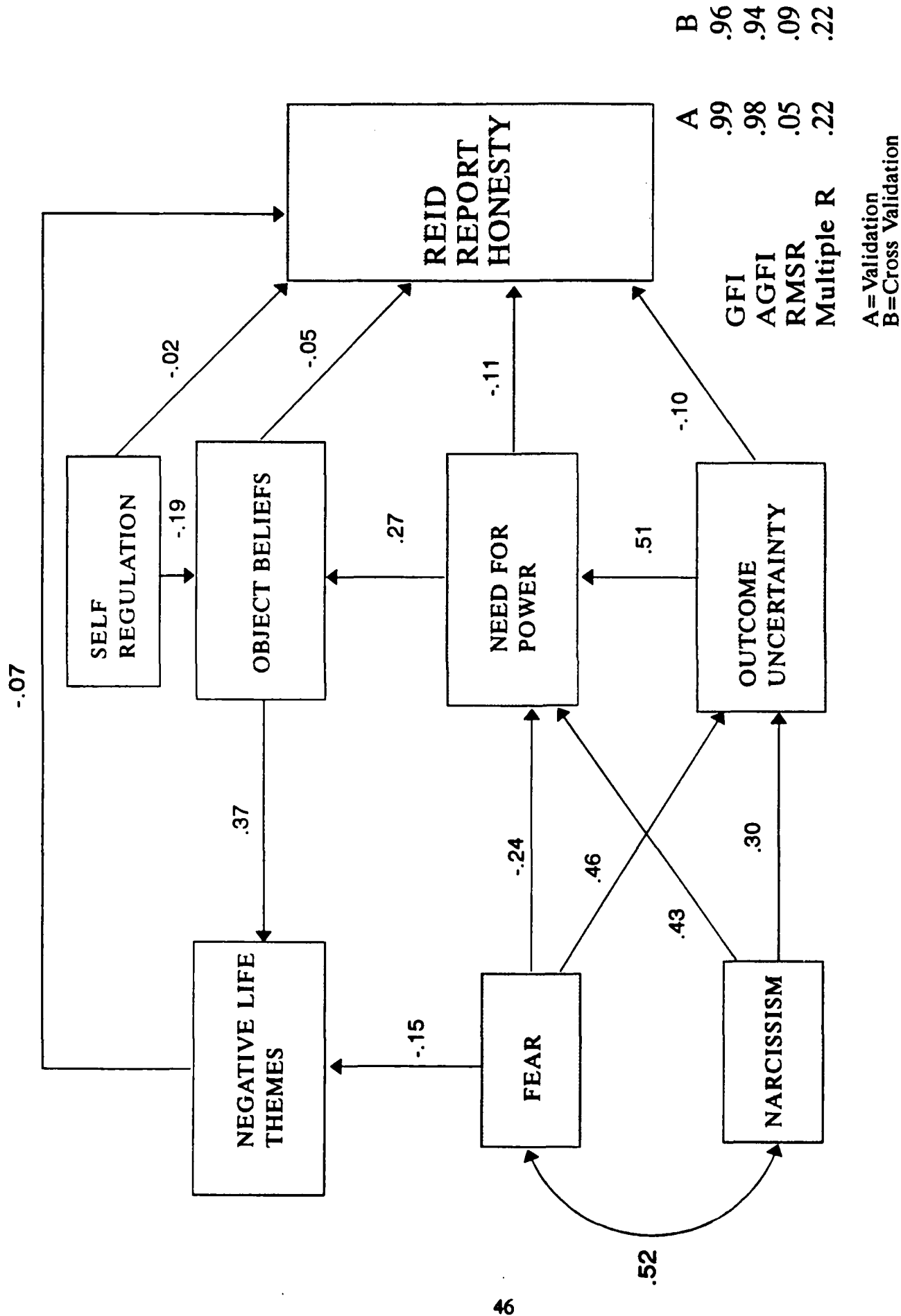


Figure 11. General Model Predicting Reid Report Honesty.

Consistent with the relatively weak prediction of integrity-related attitudes, only two constructs--need for power ($b = -.11$) and outcome uncertainty ($b = -.10$)--exerted strong, direct effects on honesty. However, negative life themes ($b = -.07$), object beliefs ($b = -.05$), and self-regulation ($b = -.02$) exerted weak inhibitory effects. This pattern of relationships is consistent with the results obtained for the PSI and suggests that some proportion of the variance in the Reid Report integrity attitudes is associated in a meaningful way with the constructs held to indicate the propensity for destructive acts. When this conclusion is considered with respect to the findings obtained for the PSI honesty scale, it suggests that attitudes towards integrity are, in part, conditioned by the belief, motivational, and self-system constructs held to influence the propensity for destructive acts.

Theft. The Reid Report and the PSI also include scales intended to measure admissions of prior theft. The model obtained when the belief, motivational, and self-system constructs were used to account for PSI theft admissions is presented in Figure 12. As may be seen, this model yielded a goodness-of-fit index of .99 and a residual term of .05 in the validation sample. A fit index of .95 and a residual term of .10 was obtained in the cross-validation sample when the ability of this model to account for PSI theft admissions was assessed. A multiple correlation of .19 was obtained in both the validation and cross-validation samples.

Although this model showed some ability to predict theft admissions, only three constructs were found to influence theft. Negative life themes ($b = .08$) and power motives ($b = .12$) both contributed to theft, suggesting that destructive tendencies are related to theft. It should be noted, however, that self-regulation ($b = .11$) was also positively related to the admissions. This finding is consistent with the earlier observations of Cunningham and Ash (1988), who note that people often admit theft to appear honest. This finding, in turn, suggests that the effects of negative life themes and power motives on theft admission might be accounted for on a similar basis.

The results obtained when the model was used to account for theft admissions on the Reid Report are presented in Figure 13. As may be seen, this model yielded a fit index of .99 and a residual term

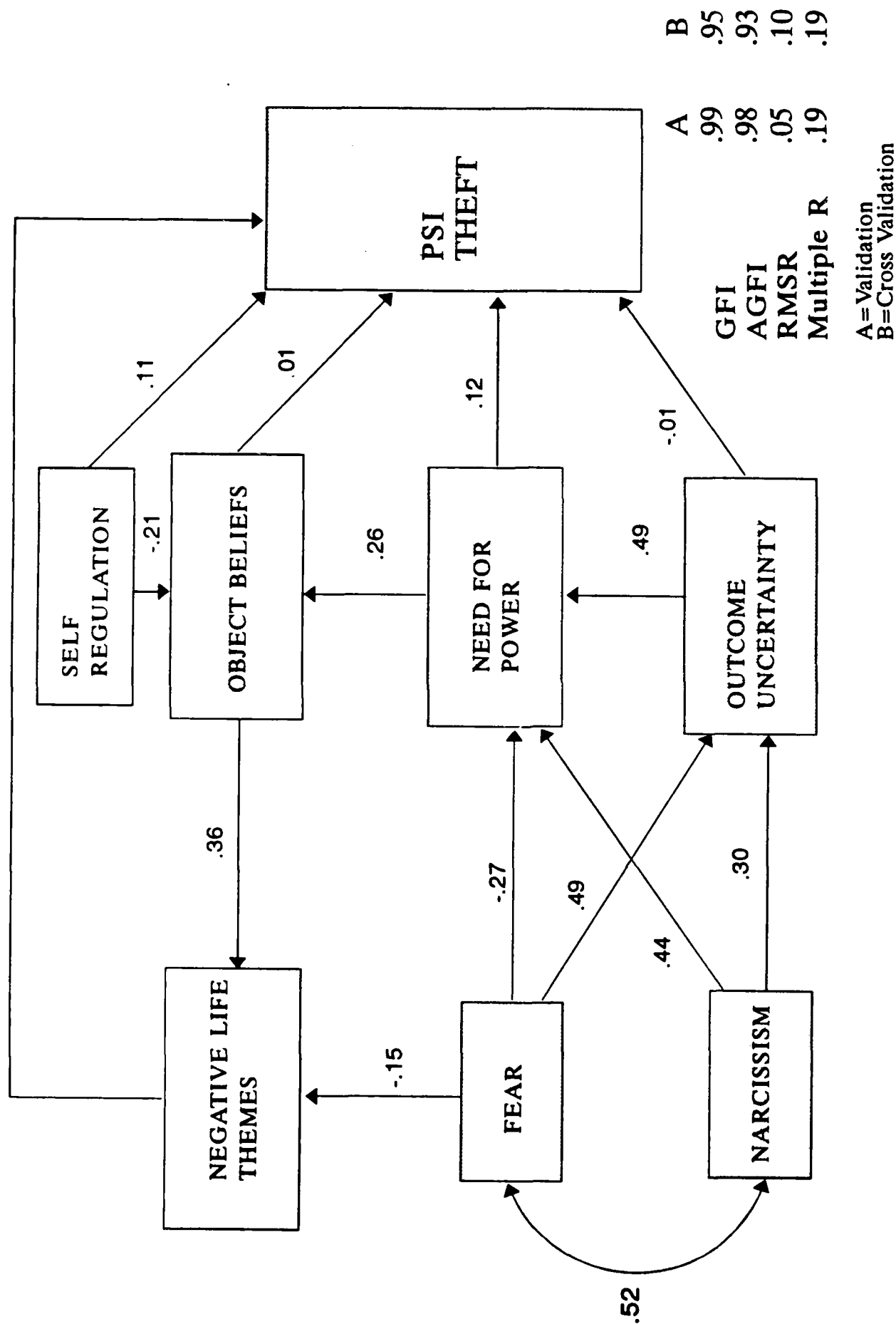
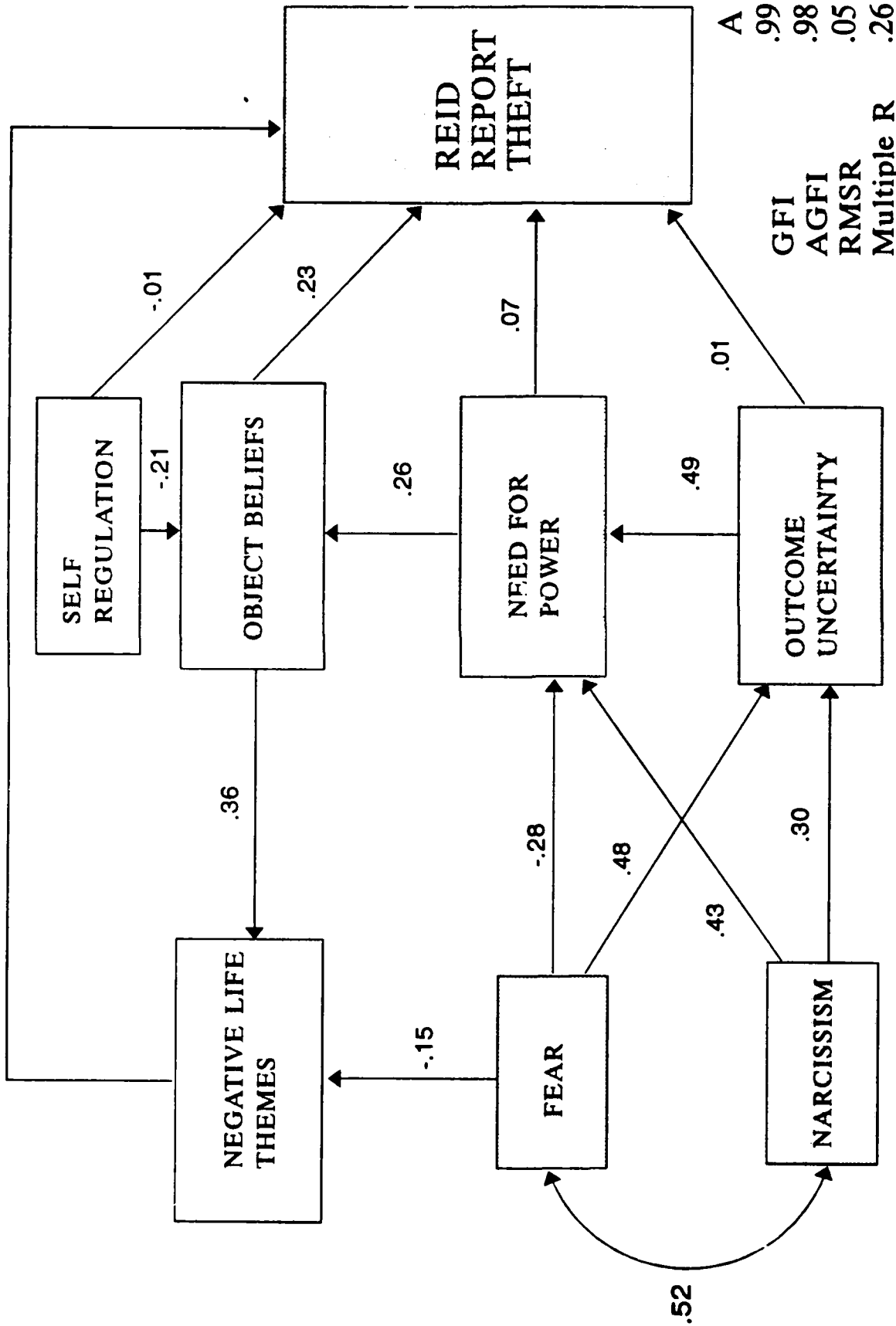


Figure 12. General Model Predicting Theft Admission on PSI.



	A	B
GFI	.99	.95
AGFI	.98	.93
RMSR	.05	.10
Multiple R	.26	.24

A=Validation
B=Cross Validation

Figure 13. General Model Predicting Theft Admission on Reid Report.

of .05 in the validation sample. In the cross-validation sample this fit index shrank to .95, while the associated residual term increased to .10. When the paths specified in this model were used to account for theft admissions on the Reid Report, a multiple correlation of .26 was obtained in the validation sample which shrank to .24 upon cross-validation. It was found that object beliefs ($b = .23$) was the strongest contributor to theft admissions for the Reid Report, while need for power had a slight positive effect ($b = .07$). These findings are slightly different from those obtained with the PSI theft-admissions scale, perhaps because the Reid Report questions focused only upon theft from work, while the PSI asked subjects to include self-reports of theft from friends, family, and neighbors, as well as from work. Thus, stealing from work seems to be influenced chiefly by a desire for personal gain, while theft in general is a function of a need for power and a conception of one's life as hopeless. This interpretable pattern of relationships suggests that theft is, at least to some extent, contingent on the constructs held to determine destructive antisocial acts.

Conclusions. Taken as a whole, the results obtained in the first phase of this study argue for the validity of the model developed by Mumford, O'Connor, Clifton, Gessner, Johnson, and Connelly (1993) to account for the propensity for destructive acts. In an independent sample, this model was found to converge with the CPI measures of socialization and delinquency, yielding a pattern of direct effects consistent with those obtained in prior studies. Thus, scores on personality-based measures of integrity can apparently be accounted for by the belief, motivational, and self-system constructs held to influence the propensity for destructive acts. Some further support for this conclusion was provided by the results obtained when this model was used to account for scores on the MMPI Lie scale and the PSI measures of integrity-related attitudes. This evidence for the construct validity of the model is noteworthy because it justifies application of this model in an attempt to identify the situational forces contributing to the propensity for destructive acts.

Phase Two

Factors. The major goal of the second phase of this investigation was to use this model and the relevant belief, motivational, and self-system constructs to identify situational influences that might contribute to the expression of these characteristics. The situationally-based background data items resulting from this item-generation effort were then to be factored to identify a limited set of situational constructs that might help account for the expression of destructive tendencies. When these items were factored using an oblique procedure and an image extraction, inspection of the resulting plot of incremental sums of squares indicated that a seven-factor solution should be retained.

Table 5 presents the 15 items yielding the highest loading on each factor, the resulting factor tables, the proportion of common variance accounted for by each factor, the internal consistency coefficients obtained for the 15 items scales, as well as scales composed of the items yielding loadings above .30 on each factor and the number of items yielding loadings above .30. A more detailed description of the items loading on each factor may be found in Appendix B.

The first factor extracted accounted for 26.3% of the variance in item responses. Items loading on this factor indicated that the individual had information held back from them by professors and friends, had been turned down for promotions, had been singled out due to cultural differences, and had been exposed to abusive teachers. Consequently, this factor appeared to reflect the Alienation variable found to influence destructive antisocial acts (Fromm, 1972; Sanford & Comstock, 1974; Walters, 1990).

The second factor obtained in this analysis accounted for 13.4% of the variance in item response. Because items concerned with parental support, parental encouragement, family atmosphere, and parental explanations for punishment provided loadings above .40 on this factor, it was labelled Nonsupportive Family.

The third factor, accounting for 3.9% of the variance in item responses, was labeled Negative Role Models. This label was selected because sizable loadings were obtained from items indicating disappointment by authority figures, parents who broke promises, parents who pushed for financial

Table 5. Correlations with the Situational Factors for Highest Loading Items, Internal Consistency Coefficients for Factor Scales and Common Variance Accounted for by Each Factor

Factor One - Alienation

Percent of Common Variance = 26.3				Correlations with the Factor
Scale with 15 Highest Loading Items Alpha ^a = .83 Number of Items ^a = 15 Alpha ^b = .87 Number of Items ^b = 15		Scale with Items Loading .30 or greater Alpha ^a = .92 Number of Items ^a = 63 Alpha ^b = .94 Number of Items ^b = 63		
Original Scale			Items	
1.	OBel	To what extent have you felt your professors/superiors were condescending to you? (str85)		-.46
2.	Narc	To what extent has your workplace been an environment where discrimination occurs? (str108)		-.44
3.	Powr	To what extent have your professors made you very aware of "taking up their time"? (str118)		-.48
4.	Narc	How often have other people used their status or position to deny you something you wanted? (str120)		-.55
5.	Powr	To what extent have individuals in your study group held back information your group needed? (str142)		-.61
6.	OUnc	How frequently have you been in situations in which it was impossible for anyone to keep up with the work? (str148)		-.47
7.	SReg	To what extent have people in organizations to which you belong gotten in trouble with legal agencies? (str153)		-.47
8.	SReg	To what extent have student organizations had to fight to get resources? (str193)		-.44
9.	Narc	To what extent have your professors played favorites? (str199)		-.46
10.	SReg	How often has your professor taken advantage of students? (str224)		-.56
11.	Powr	How often have you had professors who refused to explain a grade they gave you? (str229)		-.51
12.	Powr	To what extent has your university tolerated professors who verbally abuse students? (str240)		-.44
13.	OUnc	How often have teachers ignored suggestions from students? (str249)		-.44
14.	OUnc	How often were you turned down for positions/promotions you really wanted? (str256)		-.54
15.	OUnc	How often have you felt singled out because of cultural differences? (str257)		-.43

Note: ^a refers to validation sample (n = 195); ^b refers to cross-validation sample (n = 83)

Table 5. (Continued)

Factor Two - Non-Supportive Family

Percent of Common Variance = 13.4				Scale with 15 Highest Loading Items		Scale with Items Loading .30 or greater		Correlations with the Factor
				Alpha ^a = .89	Number of Items ^a = 15	Alpha ^a = .91	Number of Items ^a = 50	
				Alpha ^b = .90	Number of Items ^b = 15	Alpha ^b = .92	Number of Items ^b = 50	
Original Scale		Items						
16.	OUnc	Relative to others, how consistent were your parents or guardians with their praise or punishment of your actions?(st91)						.53
17.	NLTh	How much did your parents or guardians encourage having your friends over to the house?(st95)						.56
18.	OUnc	When growing up, to what extent was praise consistent in your household when growing up?(st97)						.75
19.	NLTh	How often did you witness violent arguments in your house between adults when you were growing up? (str103)						-.48
20.	OUnc	How supportive of your activities were your parents or guardians while you were growing up? (st114)						.75
21.	NLTh	When growing up, how often did your parents or gaurdians explain to you why you were being punished? (st122)						.60
22.	Narc	How well known or prominent was your family in the community you were raised? (st127)						.53
23.	SReg	Relative to others, how often have your parents or guardians lost their temper for no apparent reason? (str132)						-.48
24.	NLTh	How often did your parents or guardians provide encouragement or support for your happiness or accomplishments?(st139)						.77
25.	SReg	When you were growing up how often did your parents or guardians emphasize/encourage you to think things through before taking action? (str150)						.64
26.	SReg	To what extent were your parents or guardians supportive of decisions you made while growing up? (st154)						.75
27.	NLTh	How accepted was your family in the neighborhood?(st168)						.56
28.	NLTh	As a child, how often did parents or teachers praise your work?(st181)						.68
29.	OUnc	To what extent did you have input in important family matters?(st186)						.56
30.	NLTh	In grade school, how often did your parents or siblings work with you on your school work?(st202)						.53

Note: ^a refers to validation sample (n = 195); ^b refers to cross-validation sample (n = 83)

Table 5. (Continued)

Factor Three - Negative Role Models

Percent of Common Variance = 3.9		Scale with 15 Highest Loading Items Alpha ^a = .81 Number of Items ^b = 15 Alpha ^b = .85 Number of Items ^b = 15		Scale with Items Loading .30 or greater Alpha ^a = .91 Number of Items ^b = 49 Alpha ^b = .92 Number of Items ^b = 49	
Original Scale		Items		Correlations with the Factor	
1.	OUnc	When growing up, how often did your parents or guardians "spring" important decisions on you without explanations? (str39)			-.50
2.	OUnc	When growing up, how often did your parents or guardians break promises to you? (str44)			-.51
3.	OUnc	To what extent has it been hard to do your job because you lacked necessary resources? (str62)			-.41
4.	Narc	When growing up, how likely were your parents or guardians to remind you that your family had different standards than other people? (str76)			-.52
5.	Narc	While growing up, how likely were your parents or guardians to criticize other people? (str77)			-.48
6.	Narc	To what extent did your family stress the importance of getting a job that allowed you to earn a lot of money? (str79)			-.53
7.	NLTh	How often did you witness violent arguments in your house between adults when you were growing up? (str103)			-.43
8.	NLTh	How often have you been disappointed by an authority figure you had looked up to? (str115)			-.41
9.	Narc	How often have other people used their status or position to deny you something you wanted? (str120)			-.45
10.	SReg	Relative to others, how often have your parents or guardians lost their temper for no apparent reason? (str132)			-.53
11.	Powr	How often have you had to be competitive in order to get ahead at work or in school? (str137)			-.41
12.	Narc	How important was social prestige to your family when growing up? (str164)			-.58
13.	NLTh	Relative to others, how harsh were your parent's punishments? (str165)			-.42
14.	OUnc	To what extent were deadlines in your classes "hard and fast"? (str192)			-.42
15.	OUnc	How often have you felt singled out because of cultural differences? (str257)			-.43

Note: ^a refers to validation sample (n = 195); ^b refers to cross-validation sample (n = 83)

Table 5. (Continued)

Factor Four - Life Stressors

Percent of Common Variance = 3.1			Correlations with the Factor
Scale with 15 Highest Loading Items Alpha ^a = .79 Number of Items ^a = 15 Alpha ^b = .83 Number of Items ^b = 15		Scale with Items Loading .30 or greater Alpha ^a = .93 Number of Items ^a = 73 Alpha ^b = .94 Number of Items ^b = 73	
Original Scale		Items	
1.	OUnc	In the past, how often have you been unable to work or go to school due to your health? (str40)	-.50
2.	OUnc	How often have you had large, unexpected financial expenses (e.g., health costs, care of others, etc.)? (str46)	-.44
3.	OUnc	To what extent has your schoolwork been affected by the problems of family members? (str88)	-.53
4.	OUnc	To what extent have you struggled with a serious illness or life threatening disease? (str92)	-.44
5.	OUnc	To what extent have your teachers placed unrealistic demands on people in classes? (str113)	-.48
6.	Powr	To what extent have your professors made you very aware of "taking up their time"? (str118)	-.48
7.	OUnc	How frequently have you been in situations in which it was impossible for anyone to keep up with the work? (str148)	-.46
8.	OUnc	How often have you received medical or health evaluations that were troublesome? (str149)	-.54
9.	OUnc	To what extent have major events at work or school affected your family life? (str172)	-.46
10.	Narc	To what extent have your professors played favorites? (str199)	-.49
11.	OUnc	How often have you been blamed for something someone else did? (str225)	-.43
12.	NLTh	How often have you witnessed someone get in trouble for being honest? (str239)	-.49
13.	OUnc	How often did you miss long periods of school because of illness? (str251)	-.56
14.	NLTh	How often have you been disappointed by the behavior of people you respected? (str255)	-.49
15.	OUnc	How often did you miss long periods of school because of illness? (str269)	-.56

Note: ^a refers to validation sample (n = 195); ^b refers to cross-validation sample (n = 83)

Table 5. (Continued)

Factor Five - Competitive Pressure

Percent of Common Variance = 1.9			Correlations with the Factor
Scale with 15 Highest Loading Items Alpha ^a = .76 Number of Items ^b = 15 Alpha ^b = .83 Number of Items ^b = 15			
Scale with Items Loading .30 or greater Alpha ^a = .92 Number of Items ^a = 72 Alpha ^b = .91 Number of Items ^b = 72			
Original Scale	Items		
1. Narc	How many times has an organization you belonged to received special recognition from the school or its national organization? (str48)		-.52
2. Powr	To what extent is there a clear chain of command in the social organizations to which you belong? (str54)		.47
3. Powr	To what extent have you had a specialization or skill that sets you apart from others at school? (str57)		.48
4. SReg	Typically, how often have you been asked to take responsibility for a specific piece of work? (str58)		.49
5. Powr	In your organization, how often have you gotten more done through informal means than through formal channels? (str59)		.45
6. Powr	To what extent have you been involved in selecting members for your social organizations? (str63)		.53
7. OBel	How much competition has there been among coworkers in organizations to which you belong? (str68)		.44
8. OBel	How often have fellow students expressed concern about not being able to find a job after college? (str69)		.45
9. Narc	How often were you placed in special groups, i.e. gifted/talented, singing groups, when you were growing up? (str89)		.44
10. Narc	To what extent have the organizations to which you've belonged been characterized by competition among friends? (str109)		.47
11. OUnc	To what extent have your teachers placed unrealistic demands on people in classes? (str113)		.45
12. Powr	How often have you had to be competitive in order to get ahead at work or in school? (str137)		.57
13. Powr	How often have you been involved in team projects? (str230)		.52
14. Powr	How frequently have people in your organization(s) failed to get recognition for a job well done? (str235)		.43
15. Powr	How often have you been recognized as an outstanding performer at school? (str265)		.43

Note: ^a refers to validation sample (n = 195); ^b refers to cross-validation sample (n = 83)

Table 5. (Continued)

Factor Six - Negative Peer Group

Percent of Common Variance = 1.4			Correlations with the Factor
Scale with 15 Highest Loading Items	Scale with Items Loading .30 or greater		
Alpha ^a = .84	Number of Items ^a = 15	Alpha ^a = .93	Number of Items ^a = 72
Alpha ^b = .85	Number of Items ^b = 15	Alpha ^b = .94	Number of Items ^b = 72
Original Scale	Items		
1. NLTh	How likely were your <u>high school</u> friends to get into trouble or have brushes with the law? (str84)		-.54
2. NLTh	How many of your friends and family members were heavy users of drugs and alcohol?(st99)		.54
3. NLTh	How often have you witnessed verbal or physical violence? (str101)		-.43
4. NLTh	How likely were your <u>college</u> friends to get into trouble or have brushes with the law? (str107)		-.64
5. SReg	To what extent have people in organizations to which you belong gotten in trouble with legal agencies? (str153)		-.54
6. OUnc	To what extent has anyone close to you had problems with drugs or alcohol? (str171)		-.53
7. NLTh	To what extent have you witnessed people being taken advantage of? (str182)		-.56
8. SReg	How often did you observe people breaking rules when you were growing up? (str220)		-.48
9. SReg	How often have you seen coworkers take advantage of each other? (str226)		-.44
10. NLTh	How often did your friends encourage you to get drunk or use drugs? (str238)		-.50
11. NLTh	How often have you witnessed someone get in trouble for being honest? (str239)		-.55
12. SReg	How often have you seen your friends cheat on a boy/girlfriend? (str241)		-.51
13. NLTh	How often have you been the victim of a major crime (e.g., rape, robbery)? (str247)		-.54
14. NLTh	How often have you been disappointed by the behavior of people you respected? (str255)		-.45
15. NLTh	To what extent have your friends expressed a cynical attitude toward society? (str258)		-.49

Note: ^a refers to validation sample (n = 195); ^b refers to cross-validation sample (n = 83)

Table 5. (Continued)

Factor Seven - Financial Need

Percent of Common Variance = 1.4		Scale with 15 Highest Loading Items		Scale with Items Loading .30 or greater	
		Alpha ^a = .66	Number of Items ^a = 14	Alpha ^a = .65	Number of Items ^a = 14
		Alpha ^b = .47	Number of Items ^b = 14	Alpha ^b = .47	Number of Items ^b = 14
Original Scale		Items			
1.	OBel	How often have you felt that your friends or coworkers were intentionally ignoring you? (str83)			
2.	Powr	How often has it seemed that the best way to get ahead at your university is by knowing the right people? (str98)			
3.	Narc	How often have other people used their status or position to deny you something you wanted? (str120)			
4.	SReg	Relative to others, how much was self-discipline emphasized in your home (e.g., regular meal bedtimes etc.)? (str128)			
5.	Powr	How likely have you been to encounter "pushy" individuals in school or on the job? (str135)			
6.	OUnc	How often have you been in situations in which nothing you did seemed to make a difference? (str141)			
7.	NLTh	When you were growing up, how many families in your neighborhood were receiving some type of public assistance (e.g., food stamps, welfare)? (st145)			
8.	Narc	To what extent has your school been characterized by cliques? (str179)			
9.	SReg	To what extent have you had a study schedule? (st191)			
10.	OUnc	How old were you when your mother passed away? (str205)			
11.	OUnc	How old were you when your father passed away? (str207)			
12.	OUnc	How many members of your family have been in trouble with the law? (str215)			
13.	NLTh	How much individual attention have students in your classes typically received? (st236)			
14.	OUnc	How often have teachers ignored suggestions from students? (str249)			
		Correlations with the Factor			
		.29			
		.35			
		.37			
		-.32			
		.32			
		.35			
		-.37			
		.34			
		-.32			
		.49			
		.45			
		.34			
		-.30			
		.31			

Note: ^a refers to validation sample (n = 195); ^b refers to cross-validation sample (n = 83)

achievement, and tense relationships with parents. Given the observations of Adler (1928) and Bandura (1986) stressing the importance of positive authority figures in predicting destructive acts, it is not surprising that exposure to negative role models was found to represent a significant situational influence.

The fourth factor accounted for 3.1% of the common variance. In keeping with the notion that stress can promote destructive acts (Mason & Blakenship, 1987), a Life Stressor factor emerged. In accordance with this label, items indicating poor health, underactive scholastic demands, and lack of family or institutional support for coping with work pressures all yielded sizable loadings on the life stressor dimension.

The fifth factor accounted for 1.9% of the common variance. Items concerned with competition among friends and coworkers, worries about job opportunities, exposure to competitive social groups, and exposure to people who used status to get things yielded loadings on this factor. Accordingly, the factor was labeled Competitive Pressure. Hegerty and Sims (1978) indicate that competitive pressure may represent a particularly important influence on the occurrence of destructive acts.

The sixth factor, accounting for 1.4% of the common variance, included items that indicated the person had friends in trouble with the law, had friends who were cynical and used drugs, and that they were frequently in situations where nothing they did seemed to matter. Consequently, this factor was labelled Negative Peer Group Influences. It is of note that a nonsupportive family, coupled with negative peer group influences, has been found to influence destructive, criminal acts in prior studies (Reid & Patterson, 1989; Walters, 1990).

The seventh, and final, factor also accounted for 1.4% of common variance. Items producing high loadings on this factor examined need for public assistance, recent loss of parents, and living in a high crime area. Accordingly, this factor was labelled Financial Need. Given the findings of Forsyth and Nye (1990) and Hartshorne and May (1928), it is not surprising that financial need would contribute to the propensity for destructive acts by making the potential payoffs associated with these acts particularly attractive.

Scale Correlations. Table 6 presents the internal consistency coefficients obtained when the 15 highest loading items were used to construct scales for measuring the alienation, nonsupportive family, negative role models, life stressors, competitive pressure, negative peer group, and financial need factors. Additionally, this table displays the internal consistency coefficients obtained when the situational items were rationally scaled to tap variables influencing the belief, motivational, and self-system constructs. This table, moreover, presents the correlations among these two sets of scales. More specifically, the factorial and rational scales used to assess situational influences.

Perhaps the most direct conclusion that can be drawn from the data presented in Table 6 pertains to the reliability of the rational and factorial scales used to measure situational influences. In the case of the rational scales where the situational items were scaled, a median internal-consistency coefficient of .77 was obtained using an average of 32 items. The median internal-consistency coefficient obtained for the factorial scales was .81 based on scales which, on average, included 15 items. Thus, both sets of scales, rational and factorial, yielded reliable scores. The factorial scales, however, perhaps because they more directly reflected a homogenous set of situational influences, yielded somewhat higher internal-consistency coefficients with a somewhat smaller number of items.

As might be expected, the factorial scales evidenced a uniform pattern of positive correlations. It is of note, that the correlations observed among these factors were consistent with the labels assigned to a given factor. The alienation factor yielded its strongest relationships with the life stressors ($r = .53$) and negative role models ($r = .50$) factors. Both are likely variables to contribute to an individual's feeling of isolation. Competitive pressure was most strongly related to alienation ($r = .43$) and negative role models ($r = .42$), perhaps because parental socialization without interventions from nonparental authority figures contributes to competitive tendencies (Tyler, 1965).

A uniform pattern of positive correlations was also observed among the rational scales intended to capture situational influences. More centrally, scores on the factorial scales displayed the expected pattern of positive relationships with the scales measuring situational influences tied to the relevant belief,

Table 6. Correlations between the Factorial and Rational Scales Tapping Situational Influences

	Alpha	Alienation	Non-supportive Family	Negative Role Models	Life Stressors	Competitive Pressure	Negative Peer Group	Financial Need	Outcome Uncertainty	Object Beliefs	Negative Life Themes	Need for Power	Self Regulation	Narcissism	Fear
Alienation	(=.87)	1.0	.07	.50	.53	.43	.46	.45	.60	.69	.37	.70	.58	.57	.65
Non-supportive Family	(=.89)		1.0	.38	.11	-.20	.13	.01	.31	.14	.71	-.11	-.08	-.17	.47
Negative Role Models	(=.81)			1.0	.41	.42	.37	.24	.67	.60	.49	.52	.54	.61	.65
Life Stressors	(=.79)				1.0	.41	.41	.32	.73	.57	.32	.56	.53	.45	.72
Competitive Pressure	(=.76)					1.0	.28	.18	.50	.62	.01	.78	.62	.76	.35
Negative Peer Group	(=.84)						1.0	.30	.57	.59	.63	.47	.50	.32	.55
Financial Need	(=.66)							1.0	.26	.43	.22	.43	.12	.32	.36
Outcome Uncertainty	(=.76)								1.0	.73	.53	.62	.59	.51	.78
Object Beliefs	(=.79)									1.0	.44	.74	.64	.63	.71
Negative Life Themes	(=.77)										1.0	.21	.22	.11	.62
Need for Power	(=.78)											1.0	.65	.76	.55
Self-Regulation	(=.66)												1.0	.65	.55
Narcissism	(=.72)													1.0	.44
Fear	(=.78)														1.0

motivational, and self-system variables. In the case of the negative relationships between nonsupportive family and need for power ($r = -.11$), self regulation ($r = -.08$), and narcissism ($r = -.17$), perhaps these three behaviors can serve to counteract the negative effects of nonsupportive family.

Correlations with Behavioral Scales. Table 7 presents the correlations between the factorial and rational scales measuring situational variables and the behavioral scales capable of influencing the propensity for destructive acts. Turning first to the factorial scales, it was found that social alienation was most strongly related to behaviors indicative of outcome uncertainty ($r = .41$) and need for power motives ($r = .32$)—both variables likely to contribute to social alienation. Similarly, exposure to life stressors tended to occur among more fearful individuals ($r = .39$) and apparently acted to engender behaviors indicative of uncertainty about whether desired rewards could be obtained ($r = .36$). Although other examples of this sort might be cited, the foregoing examples illustrate a crucial point. The situational factors were related to behavioral manifestations of the belief, motivational, and self-system constructs held to influence the propensity for destructive acts in an interpretable fashion.

A second notable finding emerged in this analysis. Here, we refer to the overall magnitude of the correlations of the situational factors with the background data measures intended to measure behavioral manifestations of the belief, motivational, and self-system constructs. More specifically, it appears that the situational factors produced only moderate, albeit interpretable and significant, correlations with behaviorally-based measures of the belief, motivational, and self-system constructs held to influence the propensity for destructive acts. In fact, the median correlation observed between the situational factors ($r = .24$) might add to the prediction of destructive acts obtained from measures of relevant behavioral traits.

The additional scales intended to measure situational factors that might influence expression of the belief, motivational, and self-system constructs also evidenced moderate positive correlations with the behaviorally-based trait measures. The median correlation coefficient obtained in this analysis was .21—a

Table 7. Correlations Between the Behavioral Scales and the Rational Situational Scales

	Outcome Uncertainty	Object Beliefs	Negative Life Themes	Self- Regulation	Narcissism	Power Motives	Fear
Alienation	.41**	.05	.00	.19*	.29**	.32**	.25**
Non-Supportive Family	.04	.12	.04	-.08	-.01	-.07	.11
Negative Role Models	.50**	.14	.01	.37**	.38**	.40**	.34**
Life Stressors	.36**	-.11	-.10	.36**	.33**	.25**	.39**
Competitive Pressure	.26**	-.01	.03	.37**	.26**	.34**	.07
Negative Peer Group	.30**	.09	.17	.26**	.25**	.28**	.20*
Financial Need	.46**	-.02	.09	.19*	.37**	.24**	.28**
Outcome Uncertainty	.39**	-.05	-.06	.34**	.31**	.24**	.42**
Objects Beliefs	.48**	.00	.01	.38**	.37**	.39**	.39**
Negative Life Themes	.25**	.22*	.16	.08	.19*	.16	.21*
Self Regulation	.34**	-.07	-.05	.36**	.25**	.32**	.24**
Narcissism	.44**	.05	-.01	.38**	.37**	.45**	.20*
Power Motives	.38**	-.05	.00	.36**	.35**	.37**	.20*
Fear	.46**	-.05	-.01	.31**	.31**	.27**	.42**

Note: *p < .01
 **p < .001

median correlation comparable to that obtained for the factorial scales. On the other hand, however, these rational scales did not produce a pattern of correlations consistent with the nature of the constructs at hand. For example, the situational items intended to measure environmental events leading to outcome uncertainty were positively related to behavioral manifestations of uncertainty ($r = .39$) but were somewhat more strongly related to behavioral manifestations of fear ($r = .42$). The scaling of the situational items intended to tap object beliefs was unrelated to behaviorally-based object beliefs ($r = .00$). The situational items scaled to capture influences on negative life themes were more strongly related to high outcome uncertainty ($r = .25$) than the behavioral measure of negative life themes ($r = .16$). This pattern of findings might be attributed to the complex nature of the constructs at hand and the presence of overlapping situational items developed for each construct. Thus, the behaviorally-based constructs appeared to provide a useful basis for identifying, but not scaling, relevant situational influences on the propensity for destructive acts. As a result of this finding, all analyses focusing on the ability of situational influences to predict manifestations of destructive acts were based solely on scales derived from the factorial, as opposed to the rational, situational scales.

Criterion Correlations. Table 8 presents the correlations of the honesty measures and theft measures derived from the Reid Report and the PSI with the seven situational factors as well as the behaviorally-based trait measures of the belief, motivational, and self-system constructs held to influence the propensity for destructive acts. Similar correlations are also presented for the three criterion measures derived from the CPI--the socialization, delinquency, and type-by-level scales--as well as the index of overall harm derived from the decision-making task.

As may be seen, the behaviorally-based measures of the belief, motivational, and self-system constructs tended to yield low negative correlations with the overall honesty scores derived from the Reid Report and the PSI. These scales also yielded low negative correlations with the Reid Report and PSI scales measuring theft admissions. As might be expected, based on the models presented earlier, the outcome uncertainty ($r = -.26$), object beliefs ($r = -.21$), power motives ($r = -.25$), and narcissism

Table 8. Correlations Between the Criterion Measures Derived from the Reid Report, PSI and CPI and the Rational Situational Scales

	Reid Honesty	Reid Theft	PSI Honesty	PSI Theft	CPI Sociali- zation	CPI Delin- quency	CPI Type/ Level	Overall Harm
Outcome Uncertainty	-.11	.07	-.26**	.05	-.23*	.21*	.39**	-.07
Objects Beliefs	-.08	.25**	-.21*	.07	-.24**	.23*	.18	.14
Negative Life Themes	-.06	.08	-.16	.09	-.26**	.21*	.10	.04
Self- Regulation	-.10	.01	-.12	.16	-.15	.17	.12	-.09
Narcissism	-.11	.08	-.26**	.16	-.26**	.19*	.26**	-.07
Power	-.13	.14	-.25**	.13	-.23*	.21*	.20*	-.01
Fear	.03	-.08	-.08	.01	-.21*	.17	.38**	-.01
Alienation	-.32**	.14	-.43**	.13	-.29**	.29**	.25**	.00
Nonsup- portive Family	-.03	.01	-.07	.01	-.36**	.39**	.24**	.19*
Negative Role Models	-.06	.03	-.22*	-.01	-.40**	.46**	.23**	.15
Life Stressors	-.10	.06	-.17	.08	-.31**	.26**	.22**	-.06
Competitive Pressure	-.16	.19*	-.21*	.14	-.10	.12	-.05	-.12
Negative Peer Group	-.32**	.13	-.46**	.28**	-.52**	.41**	.31**	-.09
Financial Need	-.20*	.16	-.32**	.13	-.27**	.16	.45**	-.01

Note: *p < .01
**p < .001

($r = -.26$) scales yielded the largest correlations with respect to the PSI Honesty scale. A similar pattern of findings emerged for the CPI scales, socialization with negative life themes ($r = -.26$), object beliefs ($r = -.24$), power motives ($r = -.23$), narcissism ($r = -.26$), and outcome uncertainty ($r = -.23$), yielding stable negative correlations, while stable positive relationships of the same magnitudes were exhibited for the CPI delinquency and type-by-level scales. None of these scales were strongly related to destructive decisions derived from the managerial problem-solving exercise, although object beliefs ($r = .18$) yielded the expected positive relationships.

When the factorial scales were correlated with the various criterion measures, a somewhat different pattern of results emerged. The situational factors reflecting competitive pressure ($r = -.19$), exposure to a negative peer group ($r = -.39$), alienation ($r = -.38$), life stressors ($r = -.14$), and financial need ($r = -.26$) yielded moderate negative correlations with the integrity measures of honesty. Alienation ($r = .14$), exposure to negative peer group ($r = .20$), and life stressors ($r = .07$) were positively related to the integrity measures of theft. In the case of the CPI scales measuring socialization, all seven situational factor scales provided the expected moderate negative correlations while exhibiting uniform positive correlations with the CPI delinquency and type-by-level scale. In keeping with the earlier observations of Gough (1989), it was found that negative role models ($r = .36$), negative peer groups ($r = .36$), financial need ($r = .30$), and, nonsupportive families ($r = .31$) were particularly powerful influences on the CPI scores. With regard to the harm index derived from the managerial problem-solving task, the situational factors yielded the expected pattern of weak positive relationships, with the nonsupportive family ($r = .19$) and negative role models ($r = .15$) scales yielding the largest correlations.

Regressions. Table 9 presents the results obtained when the overall harm index was regressed on the beliefs, motivational, and self-system constructs and the situational factors after controlling for the effects of the beliefs, motivational, and self system constructs. As may be seen, the belief, motivational, and self-system constructs were not highly effective predictors of the destructiveness of decisions made

Table 9. Prediction of the Overall Harm Index

Overall Harm Index			
<u>Behavioral Scales</u>	<i>Beta</i>	<u>Factorial Scales</u>	<i>Betas</i>
Outcome Uncertainty	-.06	Alienation	.04
Object Beliefs	.15*	Non-Supportive Family	.08
Negative Life Themes	-.02	Negative Role Models	.24**
Need for Power	.01	Life Stressors	-.07
Fear	.03	Competitive Pressure	-.16*
Narcissism	-.05	Negative Peer Group	-.14*
Self Regulation	-.03	Financial Need	.01
Block 1	$MR_v = .17$		$MR_v = .30$
	$MR_{cv} = .12$		$MR_{cv} = .04$
<u>Behavioral</u>			
Outcome Uncertainty	-.17		
Object Beliefs	.11		
Negative Life Themes	-.01		
Need for Power	.05		
Fear	-.02		
Narcissism	-.08		
Self Regulation	.02		
<u>Factorial Scales</u>			
Alienation	.03		
Non-Supportive Family	.05		
Negative Role Models	.31**		
Life Stressors	-.02		
Competitive Pressure	-.18*		
Negative Peer Group	-.15*		
Financial Need	.09		
Block 2	$MR_v = .35$		
	$MR_{cv} = .04$		

Note: *p < .10
 **p < .01

on the problem-solving task, yielding a multiple R of .17 in the validation sample and a multiple correlation of .12 in the cross-validation sample. Because these problems activated recent situational exposures in problem construction, they were expected to be related to situational variables. Accordingly, the situational factors yielded larger multiple correlations in the validation ($r = .30$), albeit less stable (cross-validation sample, $r = .04$), with three factors—negative role models ($b = .24$), competitiveness ($b = -.16$), and negative peer groups ($b = -.14$)—yielding significant regression weights ($p < .10$). Apparently, negative role models lead people to structure ill-defined problems in a destructive fashion. When this effort is controlled, competitiveness and exposure to negative peer groups may induce a willingness to play by the rules, leading it to produce a negative weight. A similar pattern of effects emerged when the situational variables were added to the behavioral measures of the belief, motivational, and self-system constructs, where multiple correlations of .35 and .04 were obtained in the validation and cross-validation samples with negative role models ($b = .31$), competitive pressure ($b = -.18$), and negative peer groups ($b = -.15$) yielding significant regression weights.

Table 10 presents the results obtained when the belief, motivational, and self-system construct, as well as scores on the situational factors, were used to predict the honesty scores obtained from the Reid Report and the PSI. When the behavioral scales were regressed on the Reid Report honesty scale, a multiple R of .22 was obtained which shrank to .20 upon cross-validation. Here, the outcome uncertainty ($b = -.12$) and self-regulation ($b = -.10$) variables produced the expected negative weights, while fear ($b = .20$), perhaps due to its effect on potential detection, produced a positive weight. The situational factors yielded a larger initial multiple correlation of .43 for predicting honesty scores on the Reid Report which shrank to .38 upon cross-validation. Exposure to negative role models ($b = .24$) had a strong positive impact on honesty, while alienation ($b = -.31$) and negative peer group ($b = -.26$) had significant negative relationships to honesty when the effects of peer exposure were controlled. When the situational factors were added to the belief, motivational, and self-system measures, the validation and hold-out sample multiple R s were .47 and .38. Again, exposure to negative peer influences ($b = -.25$)

Table 10. Prediction of the Reid Report and PSI Honesty Scales

Reid Report Honesty			PSI Honesty Scale		
	Beta			Betas	
<u>Behavioral Scales</u>			<u>Behavioral Scales</u>		<u>Factorial Scales</u>
Outcome Uncertainty	-.12		Outcome Uncertainty	-.20*	Alienation
Object Beliefs	-.05		Object Beliefs	-.14	Non-Supportive
Negative Life Themes	-.00		Negative Life Themes	-.10	Family
Need for Power	-.04		Need for Power	.01	Negative Role Models
Fear	.20		Fear	.09	Life Stressors
Narcissism	-.07		Narcissism	-.19	Competitive Pressure
Self Regulation	-.10		Self Regulation	-.02	Negative Peer Group
					Financial Need
Block 1	MR _c = .22		MR _c = .43		MR _c = .57
	MR _{av} = .20		MR _{av} = .38		MR _{av} = .60
<u>Behavioral</u>			<u>Behavioral</u>		
Outcome Uncertainty	-.03		Outcome Uncertainty	-.05	
Object Beliefs	-.08		Object Beliefs	-.17*	
Negative Life Themes	.07		Negative Life Themes	.01	
Need for Power	-.02		Need for Power	.01	
Fear	.19*		Fear	.11	
Narcissism	-.05		Narcissism	-.15	
Self Regulation	-.15		Self Regulation	-.03	
<u>Factorial Scales</u>			<u>Factorial Scales</u>		
Alienation	-.33**		Alienation	-.27**	
Non-Supportive			Non-Supportive		
Family	-.14		Family	-.15	
Negative Role Models	.29**		Negative Role Models	.20**	
Life Stressors	.13		Life Stressors	.12	
Competitive Pressure	-.07		Competitive Pressure	-.05	
Negative Peer Group	-.25**		Negative Peer Group	-.34**	
Financial Need	-.07		Financial Need	-.16	
Block 2	MR _c = .47		MR _c = .61		
	MR _{av} = .38		MR _{av} = .58		
	R ² _A = .17**		R ² _A = .24**		

Note: ** p < .01

* p < .05

* p = .06

Note: ** p < .01

* p < .05

* p = .06

Table 10. Prediction of the Reid Report and PSI Honesty Scales (Continued)

Reid Report Theft				PSI Theft			
Behavioral Scales	Beta	Factorial Scales	Betas	Behavioral Scales	Betas	Factorial Scales	Betas
Outcome Uncertainty	.10	Alienation	.06	Outcome Uncertainty	-.13	Alienation	-.08
Object Beliefs	.24**	Non-Supportive		Object Beliefs	.03	Non-Supportive	
Negative Life Themes	-.05	Family	.12	Negative Life Themes	.10	Family	.10
Need for Power	.02	Negative Role Models	-.17	Need for Power	.07	Negative Role Models	-.24*
Fear	-.19*	Life Stressors	-.10	Fear	-.06	Life Stressors	-.11
Narcissism	.06	Competitive Pressure	.25**	Narcissism	.05	Competitive Pressure	.21*
Self Regulation	.05	Negative Peer Group	.09	Self Regulation	.21	Negative Peer Group	.31**
		Financial Need	.13			Financial Need	.09
Block 1	MR _c = .30 MR _{av} = .17		MR _c = .28 MR _{av} = .12		MR _c = .25 MR _{av} = .07		MR _c = .35 MR _{av} = .26
Behavioral							
Outcome Uncertainty	.05			Outcome Uncertainty	-.14		
Object Beliefs	.29**			Object Beliefs	.05		
Negative Life Themes	-.09			Negative Life Themes	.02		
Need for Power	.00			Need for Power	.09		
Fear	-.16			Fear	-.04		
Narcissism	.03			Narcissism	.03		
Self Regulation	.05			Self Regulation	.23*		
Factorial Scales							
Alienation	.04			Alienation	-.02		
Non-Supportive				Non-Supportive			
Family	.12			Family	.13		
Negative Role Models	-.22*			Negative Role Models	-.28**		
Life Stressors	-.02			Life Stressors	-.13		
Competitive Pressure	.23*			Competitive Pressure	.15		
Negative Peer Group	.07			Negative Peer Group	.29**		
Financial Need	.15			Financial Need	.10		
Block 2	MR _c = .40 MR _{av} = .17 R ² _A = .07*				MR _c = .41 MR _{av} = .27 R ² _A = .11**		

Note: ** p < .01

* p < .05

* p = .06

and alienation ($b = -.33$) exerted a strong negative influence on attitudes towards honesty, while fear ($b = .19$) and negative role models ($b = .29$) appeared to contribute to honesty.

When attitudes towards honesty were assessed using the PSI the belief, motivational, and self-system constructs, multiple correlations of .36 and .49 in the validation and cross-validation sample were obtained. The situational factors, however, again appeared to be better predictors of honesty, yielding multiple correlations of .57 and .60 in the validation and cross validation samples, respectively. Among the belief, motivational, and self-system constructs, object beliefs ($b = -.14$), negative life themes ($b = -.10$), and outcome uncertainty ($b = -.20$) led to dishonesty, while fear ($b = .09$) contributed to honesty, perhaps due to worries about detection. Among the situational factors, exposure to negative peer groups ($b = -.35$), alienation ($b = -.26$), and financial need ($b = -.21$) had strong negative impacts on attitudes towards honesty. With peer group effects controlled, negative role models ($b = .13$) and life stressors ($b = .17$) contributed to dishonesty, perhaps by making subjects more sensitive to evaluative influences. When the situational factors were added to the trait measures, the multiple correlations obtained in the validation and cross-validation samples were .61 and .58. Object beliefs ($b = -.17$), exposure to negative peer groups ($b = -.34$), and alienation ($b = -.27$) had a negative impact on honesty, while fear ($b = .11$) and negative role models ($b = .20$) contributed to honesty.

In regressing the PSI theft measure on the behavioral measures, multiple correlations of .25 and .07 were obtained in the validation and cross-validation samples. However, the situational factors again appeared to be better predictors, yielding multiple correlations of .35 and .26 in the validation and cross-validation samples. For the behavioral measures, negative life themes ($b = .10$) and self-regulation ($b = .21$) produced regression weights consistent with the results obtained in our earlier modelling efforts. Thus, the effects of self-regulation may reflect an attempt to fake good by admitting a few thefts. For the situational factors, exposure to negative peer groups ($b = .31$) and competitiveness ($b = .21$) contributed to theft, suggesting that peers and a materialistic orientation contribute to theft. With these efforts taken into account, exposure to negative models ($b = -.24$) and life stressors ($b = -.11$) tended

to inhibit theft. When the situational factors were added to the behavioral measures, multiple correlations of .41 and .27 were obtained in the validation and cross-validation sample. A significant positive impact was exerted by self regulation ($b = .23$) and exposure to negative peer groups ($b = .29$) on theft, and a significant negative impact was exerted by role models ($b = -.28$) inhibiting theft.

A similar pattern of effects emerged when the behavioral and situational measures were used to account for theft admissions on the Reid Report. The behavioral measures produced multiple correlations of .30 and .17 in the validation and cross-validation samples. In contrast to the multiple correlations of .28 and .12 produced by the situational factors, the object beliefs ($b = .24$) and fear ($b = -.19$) scales produced significant regression weights in the behavioral analysis, while the competitive pressure ($b = .25$) factor produced a significant regression weight in the situational analyses. After adding the situational factors to the behavioral scales, multiple correlations of .40 and .17 were obtained in the validation and cross-validation samples. In this analysis, it was found that object beliefs ($b = .29$) and competitive pressure ($b = .23$) contributed to the prediction of theft, while negative role models ($b = -.22$) inhibited theft.

Table 11 presents the results obtained when the behavioral measures and the situational factors were used to predict scale scores derived from the CPI. For the delinquency scale, the behavioral measures yielded multiple correlations of .38 and .31 in the validation and cross-validation samples with the measures of negative life themes ($b = .19$) and object beliefs ($b = .18$) producing significant regression weights. When delinquency scores were regressed on the situational factors, a multiple correlation of .58 was obtained in the validation sample which shrank to .51 upon cross-validation. Exposure to negative peer groups ($b = .27$), exposure to negative role models ($b = .27$), and nonsupportive family ($b = .24$) contributed to delinquency. When the situational factors were added to the behavioral measures, multiple regressions of .61 and .50 were obtained in the validation and cross-validation samples. Here, the negative life themes scale ($b = .14$), negative peer groups ($b = .22$), negative role models ($b = .24$), and nonsupportive family ($b = .23$) contributed to delinquency.

Table 11. Predicting of the CPI Socialization, Delinquency and Type/Level Scales

CPI Delinquency				CPI Socialization			
Behavioral Scales	Betas	Factorial Scales	Betas	Behavioral Scales	Betas	Factorial Scales	Betas
Outcome Uncertainty	.09	Alienation	.03	Outcome Uncertainty	-.07	Alienation	.05
Object Beliefs	.18*	Non-Supportive		Object Beliefs	-.16**	Non-Supportive	
Negative Life Themes	.19**	Family	.24**	Negative Life Themes	-.25**	Family	-.24**
Need for Power	.01	Negative Role Models	.27**	Need for Power	-.00	Negative Role Models	-.16*
Fear	.13	Life Stressors	.02	Life Stressors	-.18	Life Stressors	-.06
Narcissism	-.04	Competitive Pressure	-.04	Competitive Pressure	-.07	Competitive Pressure	.06
Self Regulation	.14	Negative Peer Group	.27**	Negative Peer Group	-.06	Negative Peer Group	-.41**
		Financial Need	.00	Financial Need		Financial Need	-.12
Block 1	MR _c = .38 MR _w = .31		MR _c = .58 MR _w = .51		MR _c = .42 MR _w = .36		MR _c = .62 MR _w = .49
Behavioral							
Outcome Uncertainty	-.06			Outcome Uncertainty	.10		
Object Beliefs	.12			Object Beliefs	-.13		
Negative Life Themes	.14*			Negative Life Themes	-.15*		
Need for Power	.01			Need for Power	-.00		
Fear	.04			Fear	-.08		
Narcissism	-.04			Narcissism	-.05		
Self Regulation	.11			Self Regulation	-.02		
Factorial Scales							
Alienation	.05			Alienation	.04		
Non-Supportive				Non-Supportive			
Family	.23**			Family	-.22**		
Negative Role Models	.24**			Negative Role Models			
Life Stressors	.06			Life Stressors	-.14		
Competitive Pressure	-.07			Competitive Pressure	-.10		
Negative Peer Group	.22**			Negative Peer Group	.07		
Financial Need	.00			Financial Need	-.36**		
Block 2	MR _c = .61 MR _w = .50 R ² _A = .23**				MR _c = .67 MR _w = .62 R ² _A = .26**		

Note: ** p < .01

* p < .05

* p = .06

Table 11. Predicting of the CPI Socialization, Delinquency and Type/Level Scales (Continued)

CPI Type/Level			
Behavioral Scales	Beta	Factorial Scales	Betas
Outcome Uncertainty	.29**	Alienation	.00
Object Beliefs	.01	Non-Supportive Family	.14
Negative Life Themes	.18	Negative Role Models	.07
Need for Power	-.04	Life Stressors	.05
Fear	.31**	Competitive Pressure	-.19*
Narcissism	.03	Negative Peer Group	.18*
Self Regulation	-.14	Financial Need	.39**
Block 1	MR _u = .48 MR _u = .46		MR _u = .55 MR _u = .44
Behavioral			
Outcome Uncertainty	.15		
Object Beliefs	.02		
Negative Life Themes	.09		
Need for Power	.02		
Fear	.23*		
Narcissism	-.03		
Self Regulation	-.06		
Factorial Scales			
Alienation	-.00		
Non-Supportive Family	.17*		
Negative Role Models	-.05		
Life Stressors	.00		
Competitive Pressure	-.13		
Negative Peer Group	.16*		
Financial Need	.31**		
Block 2	MR _u = .61 MR _u = .59 R ² _A = .14**		

Note: ** p < .01

* p < .05

* p = .06

A similar pattern of effects was obtained for the socialization scale of the CPI. Here, the behavioral scales produced multiple correlations of .42 and .36 in the validation and cross-validation samples, while the situational factors produced multiple correlations of .62 and .49 in the validation and cross-validation samples. Negative life themes ($b = -.25$) and object beliefs ($b = -.16$) inhibited socialization. This pattern of results suggests that socialized behavior is conditioned by attributes that contribute to a cooperative view of social relationships. In keeping with this hypothesis, negative peer group ($b = -.41$), nonsupportive family ($b = -.24$), and negative role models ($b = -.16$) inhibited socialization. After adding the situational variables to the behavioral measures, multiple correlations of .67 and .62 were obtained in the validation and cross-validation samples. Negative life themes ($b = -.15$), exposure to negative peer groups ($b = -.36$), and nonsupportive families ($b = -.22$) continued to inhibit socialization.

When the behavioral measures were used to predict scores on the type-by-level variable derived from Gough's (1989) Alpha, Beta, Delta, and Gamma taxonomy, multiple correlations of .48 and .46 were obtained in the validation and cross-validation samples. In accordance with the findings obtained in the initial modelling analyses, outcome uncertainty ($b = .29$) and fear ($b = .31$) tended to predict expression of an immature potentially destructive Delta personality. When the situational factors were used to predict scores on this scale, multiple correlations of .55 and .44 were obtained with exposure to financial need ($b = .39$) and negative peer groups ($b = .18$), contributing to an immature, destructive personality, while competitive pressure ($b = -.19$) exerted a negative effect on expression of this type at least when the effects of need and peers were accounted for. When the situational factors were added to the behavioral scales, the multiple correlations obtained in the validation and cross-validation samples were .61 and .59, respectively. Again, fear ($b = .23$), exposure to negative peer groups ($b = .16$), exposure to nonsupportive family ($b = .17$), and financial need ($b = .31$) contributed to the emergence of the immature Delta personality.

Conclusions. The results obtained in these correlational and regression analyses clearly argue for the meaningfulness of the situational factors. Scores on these factors were consistently positively related to theft, delinquency, type-by-level and harm on the decision-making task while yielding a uniform pattern of negative correlations with measures of honesty and socialization. In fact, in the case of honesty and theft measures drawn from the Reid Report and the PSI, the situational factors were better predictors than the behaviorally-based measures of the belief, motivational, and self-system constructs in all cases, except for the Reid Report measure of theft admissions. This exception may be explained because theft admissions for the Reid Report were limited to the workplace. In the case of personality-based measures of integrity, such as those drawn from the CPI, the behaviorally-based and situational scales proved to be equally effective predictors, although the situational scales made a unique contribution to prediction above and beyond that obtained from behaviorally-based measures of the beliefs, motivational, and self-system constructs.

Discussion

Before examining the broader implications of our findings, certain limitations of the present study should be noted. To begin, the results presented above were obtained in a college-level population. It is, therefore, open to question whether our findings can be arbitrarily extended to older, more mature populations. For example, it is possible that other situational factors might emerge in a sample examining situational influences in an older population, or the weights assigned to situational factors may differ. On the other hand, it should be recognized that the sample used in the present study was reasonably representative of the population of entry-level white-collar workers and, therefore, may provide an appropriate starting point for further efforts along these lines.

It should also be recognized that the criterion measures used in the study were not overt measures of destructive behavior. Overt measures of destructiveness are difficult to obtain and, at least in well-managed organizations, represent rare events. Thus, the use of more proximate, indirect markers of

destructive tendencies seemed more appropriate in an initial validation effort. Future research, however, should examine the impact of the situational factors as well as the belief, motivational, and self-system constructs on actual destructive acts observed in organizational settings.

Finally, one should attend to the point that no single measure used in this study represents a fully adequate index of the propensity for destructive acts. For example, although integrity tests display some general predictive validity (Ones, Viswesvarian, & Schmidt, 1993), the application of these measures has been questioned in the broader technical literature. Similarly, although the kind of problem-solving task used in the present study has shown some validity in studies of related constructs, such as wisdom (Mumford, Baughman, Connelly, & Marks, in press), strong support for the validity of this task is not available. Given this constraint, interpretation must necessarily be based on the overall pattern of findings obtained in the various analyses.

Even bearing these limitations inherent in exploratory studies in mind, we believe the findings obtained in this effort have important implications for understanding the nature and ontogeny of destructive acts. The results obtained in the present study provide further support for the general model of the belief, motivational, and self-system constructs held to influence the propensity for destructive acts. First, the present study provided additional support for the generality of this model by showing that a virtually identical set of causal relationships among the belief, motivational, and self-system constructs was obtained when this model was applied in a new sample. This point can be readily seen simply by comparing the models obtained in the present study to those obtained by Mumford, O'Connor, Clifton, Gessner, Johnson, and Connelly (1993).

Second, the present study has provided some crucial evidence indicative of the predictive validity of this model. In this study, we used the model to account for integrity scores derived from two overt and two personality-based measures of integrity. In the case of the personality-based measures, it was found that the core constructs included in this model--negative life themes, object beliefs, power motives, and outcome uncertainty--were effective predictors of scores on the delinquency, socialization, and Delta-

level scales drawn from the CPI as well as the MMPI Lie scales. Thus, it appears that background data measures of these belief, motivational, and self-system constructs converge with other related measures.

The convergent validation evidence is noteworthy in its own right. The findings obtained in the present effort, however, also speak to a broader theoretical issue. More specifically, the nature of this model provides us with some understanding of the causal variables giving rise to the propensity for destructive acts. This model, in keeping with the observations of Fromm (1973) and Becker (1975), indicates that fear and narcissism may lay a foundation for later destructiveness. Fear and narcissism, however, do not exert direct effects on the propensity for destructive acts. Instead, they influence destructiveness by contributing to the expression of outcome uncertainty and power motives. Outcome uncertainty and power motives, in turn, contribute to the development of object beliefs as people get use to the idea of using others. Object beliefs lead people to develop a negative image of life and others which contributes to the emergence of negative life themes. Negative life themes, along with object beliefs, power motives, and outcome uncertainty, represent the major direct influences on the propensity for destructive acts. Thus, attempts to assess these direct influences on destructive tendencies should provide a sound foundation for assessment devices intended to single out high-risk employees.

Some support for this proposition was obtained when this model was used to account for theft scores and measures of integrity-related attitudes derived from the Reid Report and the PSI. It was found that the same constructs--negative life themes, object beliefs, power motives, and outcome uncertainty--were capable of predicting both attitudes toward honesty and theft admissions. However, a stronger pattern of relationships was obtained for the PSI as opposed to the Reid Report. This finding is consistent with the earlier observations of Harris and Sackett (1984) indicating that the PSI displays fairly good construct validity relative to other integrity tests. More broadly, however, the findings obtained when the belief, motivational, and self-system constructs were used to account for scores on integrity tests suggests that the validity of these tests is contingent on the extent to which they capture enduring beliefs, motivational, and self-system concepts influencing the propensity for destructive acts.

On the other hand, it should be recognized that behaviorally-based measures of the belief, motivational, and self-system constructs were better predictors of scores on personality-based measures of integrity than scores on the theft and attitudinal measures derived from the Reid Report and the PSI. In retrospect, this finding is not especially surprising. A variety of research indicates that although attitudes, such as attitudes towards dishonest or deceptive behavior, are influenced by enduring traits, they are also strongly affected by immediate situational influences (Landy, 1986). Similarly, theft has been shown to exhibit not only dispositional components but also a marked sensitivity to situational influences (Forsyth & Nye, 1990; Hartshorne & May, 1928). Thus, one would expect that behaviorally-based trait measures of relevant belief, motivational, and self-system constructs would only exert limited effects on those indices, particularly in comparison to relevant situational influences.

In the present study, an attempt was made to formulate a taxonomy of the situational events contributing to the propensity for destructive acts and to assess the ability of these situational factors to account for integrity-related attitudes and theft. Prior attempts to develop situational taxonomies have floundered in the wealth of potentially relevant situational events and the difficulties entailed in identifying an a priori structure for organizing this domain of events (Fleishman & Mumford, 1991; Fleishman & Quaintance, 1984). To circumvent this problem, the present study used the belief, motivational, and self-system constructs held to influence the propensity for destructive acts as a basis for defining and structuring this domain. Accordingly, a panel of psychologists was asked to review the literature pertaining to the development and expression of each of these constructs and then identify situations that would contribute to either the development or expression of a construct.

When the resulting situationally-based background data items were factored, seven factors emerged that accounted for a substantial portion of the variance in item responses. These factors were labeled Alienation, Nonsupportive Family, Negative Role Models, Life Stressors, Negative Peer Group, and Financial Need. What is of note with regard to the content of these factors is that they appear to provide a relatively comprehensive description of the situational factors found to influence destructive acts

in the general literature (Darley, 1993; Forsyth, & Nye, 1992; Hegerty & Sims, 1978; Mumford, Gessner, Connelly, O'Connor, & Clifton, 1993; Reid & Patterson, 1989; Sanford & Comstock, 1974; Walters, 1990; Yamagashi & Sato, 1986).

More centrally, in accordance with the hypothesis that situational influences should be particularly powerful influences on attitudes towards integrity and theft, it was found that scores on factors measuring exposure to these situational influences were particularly effective predictors of both integrity-related attitudes and theft. In fact, these situational factors were found, in both the correlational and regression analyses, to be far more effective predictors of integrity-related attitudes and theft than the behaviorally-based background data scales intended to measure enduring belief, motivational, and self-system constructs held to influence the propensity for destructive acts. These factors, moreover, lead to significant increments in prediction when added to the behavioral measures while accounting for the bulk of the variance in scores on these measures.

These findings, of course, point to the construct validity of the taxonomy of situational factors developed in this study. Additional evidence bearing on the construct validity of these situational factors may be obtained from three other sources. First, the situational factors yielded only moderate positive correlations with the behaviorally-based measures of beliefs, motivational, and self-system constructs under conditions where the relevant trait and situational variables were not synonymous (Caspi, 1987). Second, in accordance with the foregoing observation and the fact that the CPI scales explicitly focus on dispositional aspects of integrity, valid measures of situational factors should contribute to the development of traits, thereby inducing correlations with trait-based measures of integrity, albeit less powerful correlations than those obtained for attitudinal measures. Third, and finally, it was found, in accordance with our initial hypotheses, that exposure to situational factors influenced how people constructed novel, ill-defined problems, leaving the situational factors to account for the destructiveness of the solutions proposed on the managerial problem-solving task.

Beyond this evidence for the construct validity of our taxonomy of situational factors, the findings obtained point to a number of broader conclusions worthy of mention. The first issue here pertains to the use of integrity tests in screening high-risk employees. It is generally recognized that legitimate, legally defensible selection systems must focus on characteristics of the individual (Guion, 1966). In fact, one generally wants to select people based on enduring characteristics, precisely because it is these enduring characteristics that determine future behavior.

Given these principles, the results obtained in the present study would lead one to question the routine application of integrity tests in employee screening. More specifically, it appears that situational factors, rather than enduring characteristics of the individual, represent the most powerful determinant of scores on these measures. Thus, it is not the individual being assessed but rather his or her life circumstances. Not only does this finding argue against the use of integrity tests, the nature of the factors at hand, most of which are likely to be more pronounced in a low socio-economic environment, indicates that these tests are likely to exhibit undue adverse impact with respect to applicants coming from a disadvantaged background.

By the same token, the findings obtained in the present study recommend the application of personality-based measures of integrity, such as the delinquency and socialization scores of the CPI. The data accrued in this effort indicates that although scores are influenced by situational factors, these scales do a better job of capturing behaviorally-based manifestations of the beliefs, motives, and self-concepts held to influence the propensity for destructive acts. In fact, it would be desirable to extend current personality-based assessment procedures by developing new measures less susceptible to situational influences than those currently available. In fact, one potential approach to this problem may be found in James (1993) and Mumford (1994), who argue for the development of a new generation of personality measures explicitly intended to assess enduring processing biases characteristic of destructive and nondestructive individuals.

Aside from its implications for selection procedures, the results obtained in the present study have some immediate utility for improving the security screening process. To begin, the present study has provided a taxonomy of situational factors which influence the propensity for destructive acts. As a result, it should prove possible to use these factors in an ongoing assessment of life situations to identify current employees whose life circumstances put them at risk for destructive acts, such as security breaches. This profile might then be used to identify individuals who need to be reappraised for clearances or, alternatively, carefully monitored to prevent potentially harmful forms of destructive organizational behavior.

The individual, of course, is not the only issue at hand in the control of destructive acts. Social scientists have long known that certain environmental conditions and certain organizational policies appear to promote the propensity for destructive acts (Darley, 1993). One illustration of this point may be found in the recent upsurge in workplace violence, including the occasional murder of coworkers. Based on the findings accrued in the present study, organizations that induce intense competitive pressure, do not provide general social support, induce alienation or a lack of connection to coworkers, do not provide peer models for appropriate behavior, induce stress through threat, and do not provide minimum financial security, might create conditions where destructive acts, ranging from violence to espionage, are likely to occur. The factors identified in the present study might be used to construct a climate inventory intended to identify organizations likely to suffer from destructive acts, and this climate survey might be used to recommend changes in organizational policy minimizing the likelihood of destructive acts.

These observations with regard to climate and policy bring us to our final comment. Destructive acts are not solely a property of either the individual or the organization they are working in. Instead, effective control of these acts must consider both enduring characteristics of the individual and the nature of the situations to which they are exposed. Hopefully, the present study, by identifying these situational influences and the more crucial belief, motivational, and self-system constructs contributing to the

propensity for destructive acts, has taken us a step closer to the development of a comprehensive model for the control of destructive behavior in organizational settings.

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APPENDIX A

Differential Exposure ("Situational") Background Data Items

Belief System

I. OBJECT BELIEFS

- How often have you had to fight to get things done at work?
- How many close personal friends have you made at work?
- How often have you felt like you had too much work to do?
- How much difficulty have you had meeting monthly bills?
- How often have you had to get tough with coworkers or subordinates?
- How often have you wished you went into another line of work?
- How often have you been disappointed by the way people behaved towards others?
- How often have you been passed over for promotions?
- How likely have you been to stay in touch with friends after you moved from an area?
- How often have others in your office complained that they were treated unfairly by your boss?
- How often have your coworkers felt that their work was not appreciated by your boss?
- How much competition is there among coworkers in your organization?
- How often have your fellow students expressed concern about not being able to find a job after college?
- How many of your friends had to drop out of school due to financial or family concerns?
- To what extent have your professors pushed you into working at a frantic pace?
- How often have your bosses threatened to give you an official reprimand?
- To what extent have you worked for organizations that are laying off workers?
- To what extent have you worked for organizations where the chances of promotion were slim?
- How often have you been asked to bend the rules?
- How often do you see close family members who don't live with you (parents, grandparents, etc.)?
- How tense is your living situation?
- How often do your school organizations (i.e. fraternity/sorority, student government, etc...) hold special outings for students?
- How often have you put in more time on group projects than others?
- How often have you found it necessary to tell half truths?
- Have you had to be aggressive to get ahead at school?
- In general, how concerned are you evaluations (e.g. SATs, grades, etc.)?
- How often do you hear rumors about tuition or class size increases?
- How often have you taken a difficult class where the professor refused to curve?
- To what extent do you have to compete to get into your major?
- Relative to others, to what extent does your living situation have a family atmosphere?
- How often have you worried about your family's financial stability in the last six months?
- How often have you found yourself living from paycheck to paycheck?
- How likely have you been to change your position when confronted by a superior's differing opinion?
- How often have your friends compromised in order to gain personally?
- How often have you lost friends in your social organization (i.e. fraternity/sorority, student government, etc...) due to shifting alliances?

How often have coworkers tried to "outdo" you or compete with you on a project?
How often have you felt purposely isolated by your friends?
To what extent have you felt your superiors were condescending to you?
To what extent has your school fostered a competitive environment?
To what extent are people in your workplace asked to do double duty or "wear too many hats"?
How often did your friends break promises?
To what extent have the social groups to which you belonged fostered a competitive atmosphere?

II. OUTCOME UNCERTAINTY

How often have deadlines in your job been accelerated?
How often have you had multiple deadlines close together?
To what extent does your boss vary the amount of autonomy in your job?
To what extent has financial uncertainty limited your ability to save money?
How often is the way your professors treats the class dependent on his/her mood?
To what extent has your schoolwork been affected by the problems of family members?
To what extent have major events at work affected your family life?
To what extent have scholarships or loans been dependent on economic conditions?
Relative to others, how consistent were your parents with their praise or punishment of your actions?
How often did your family move while you were growing up?
When growing up, did your family ever make a drastic change in income or social status?
How often have you had large, unexpected financial expenses (e.g. health costs, care of others, etc.)?
In the past, how often have you been unable to work or go to school because of health reasons?
When growing up, how likely were your parents to "spring" important decisions on you without explanations?
Relative to others, how many close friends have you lost because of a serious disagreement?
To what extent has the feedback from your teachers been consistent?
Have your parents ever been separated or divorced?
Have any members of your family ever been in trouble with the law?
To what extent has anyone you were close to ever had problems with drugs or alcohol?
Have you ever had to care for an ill person for an extended period of time?
When you were growing up, how often were you aware of people you knew who lost their jobs?
When growing up, how worried did your parents seem about money, jobs, or the state of the local economy?
How often have you seen people be rewarded for poor work?
Relative to others, how often have you had something of yours stolen or vandalized?
How many friends or family do you know that have lost money in investments?
How many of your friends' parents have gotten divorced over the last five years?
To what extent have people in your social groups accepted new members?
How often have you changed major?
When growing up, how often did your parent break promises to you?
How often have you seen others get away with cheating?
How consistent were your parents in their criticism of your school performance?
How much did your parents have to scrimp and save when you were growing up?
How often did you miss long periods of school because of illness?
How often were you turned down for positions/promotions you really wanted?
How often did the rules of conduct in your home seem to be applied inconsistently?
How often have your teachers' standards of performance seemed to arbitrarily change?

How much difficulty have you and your coworkers had determining what your teachers really want?

Have either of your parents passed away? If yes, was it your: (A) Mother, (B) Father, (C) Both.

How old were you when they passed away? (A) 0-5, (B) grade school, (C) Junior H.S., (D) H.S., (E) College.

How often has an accident or personal injury caused you unanticipated financial difficulties?

How much input did you have in important family matters (as a child)?

Have you been involuntarily unemployed recently or for an extended period of time?

Were either of your parents unemployed for an extended period of time while you were growing up (when they needed to be working)?

How often have you been surprised when a boy/girlfriend broke up with you?

While you were in school, how difficult was it for you to find employment during breaks?

How often have teachers ignored suggestions from students?

How set were deadlines in your classes?

Has anyone you were close to died recently?

How many of your close friends have been seriously ill over the last five years?

Have you recently become engaged?

Have you recently gotten married?

To what extent do you enjoy holidays?

Have you recently been forced or asked to leave a job?

To what extent have you been involved in a friend's marital problems?

Has anyone you were close to had an unexpected pregnancy?

Has anyone you are close to recently started a new job?

How often have you felt unsure about your ability to succeed in your classes?

Self System

III. NEGATIVE LIFE THEMES

- To what extent have your friends expressed a cynical attitude towards society?
- To what extent do coworkers hear from management only when there is a problem?
- To what extent did your friends have brushes with the law?
- How often has your house or car been broken into in your neighborhood?
- To what extent did you have heroes while you were growing up?
- How often did parents or teachers praise your work as a child?
- How likely are you to have someone in whom you can confide?
- Have you known of any professors who had to leave your university due to improprieties?
- How often have your professors spent time with students regarding personal problems?
- How many of your family members have been divorced?
- How often has your supervisor taken things out on coworkers because he/she was in a bad mood?
- How likely have you been to witness verbal or physical violence?
- How often did you witness violent arguments in your house between adults when you were growing up?
- How likely were your high school friends to get into trouble?
- How likely was the neighborhood you grew up in to be described as "rough"?
- How much did your parents encourage having your friends over to the house?
- Have you ever had a close friend who committed suicide or attempted suicide?
- To what extent are people encouraged to recycle at your school?
- How likely were your college friends to get into trouble?
- When growing up, how many nights a week did your family eat dinner together?
- How often did your father/mother ask each other for advice on solving problems at work?
- How many families in your neighborhood were receiving some type of public assistance (e.g., food stamps, welfare)?
- How much time do your professors spend with new students?
- How often did it seem you could never satisfy your parents?
- How many of your friends couldn't afford to go to college?
- How often have you felt that your friends or roommates would go to great lengths to support you in times of personal crises?
- To what extent did your university provide you with inappropriate guidance concerning your curriculum?
- To what extent did your parents monitor your T.V. viewing?
- Have you ever witnessed anyone permanently injured or killed?
- Growing up, how much time have you spent with older people?
- How many teachers were you close to in high school?
- How often have you been disappointed by the behavior of people you respected?
- How much family warmth did you experience growing up?
- How accepted was your family in the neighborhood?
- How much time have you spent with individuals who were optimistic about life?
- In grade school, how often did your parents or siblings work with you on your school work?
- Relative to others, how "happy" was your childhood?
- How often did your parents provide encouragement or support for your happiness or accomplishments?
- How much did your parents enjoy having friends around the house?
- How often do you hear from "old" friends or roommates?

How often have you been put in positions where you had to help people deal with personal problems?

How often have you been encouraged to win whatever the cost?

How often have people thanked you for things you did for them?

Did you have the opportunity to work with a professor you really liked in school?

How often did your parents get visibly and vocally angry at each other?

How many of your friends and family were heavy users of drugs and alcohol?

How often have you been the victim of a major crime (e.g. robbery, rape)?

How important was it to your parents that you accomplish something with your life even if you didn't make a lot of money?

How often have you found yourself discussing religious, social, and political issues with your friends or family?

How often did your friends encourage you to get drunk?

How often did your friends encourage you to use drugs?

How often have you been approached by a professor to help on research or a special project?

When you were growing up, were your heroes likely to be:

(1) Past Presidents

(2) Scientists

(3) Business Leaders

(4) Inventors

(5) Sports

(6) Actors

(7) Musicians

(8) Family

How often have you been disappointed by an authority figure you had looked up to?

To what extent do you feel the administration at your university is hypocritical?

When growing up, did your parents explain to you why you were being punished?

How much do you respect your parents?

How much vandalism was there in your neighborhood?

At what age did you first experience the death of an immediate family member or very close friend?

How much individual attention did students in your classes typically receive?

Relative to others, how harsh were your parent's punishments?

IV. SELF REGULATION

How much have your boss/peers stressed treating other people with respect?

How often have your friends criticized peers who didn't play by the rules?

How difficult has it been to tell what was expected of you at work?

How many times have you been asked to take responsibility for a specific piece of work?

How often have you seen coworkers take advantage of each other?

How often has your professor taken advantage of students?

When you were growing up did your parents emphasize/encourage you to think things through taking action?

How often are people at work able to pass the buck for their mistakes?

How important is maintaining professional standards in your organization?

To what extent is your workplace characterized by coworkers who are supportive of each other?

To what extent have people in organizations to which you belong gotten in trouble with the agencies?

To what extent were your parents supportive of decisions you made while growing up?

How often did your parents bring their work frustrations home with them?

To what extent have your professors had to fight to get the resources your office needed?

To what extent would you say that your friends have problems with drugs or alcohol?

How many times have you taken a class that was overloaded due to budget cuts?

How often have you had a professor who did not clearly explain assignments?
 How often has your university provided instruction in using the computer facilities available?
 How often did you make your early morning classes?
 To what extent did your teachers enforce the absenteeism policy?
 To what extent did you have a study schedule?
 How strictly enforced is the honor code at your school?
 To what extent does it bother you when a professor changes an assignment?
 To what extent have student organizations had to fight to get resources?
 How many of your friends have cheated on a boy/girlfriend?
 To what extent have the organizations to which you belong been reorganized by each new set of officers that come in?
 How many people have you known that dropped out of school?
 How much did your fellow students complain about not being given clear guidelines on projects?
 To what extent were your parents involved in a legal dispute when you were young?
 How often did your parents discuss ethical issues when you grew up?
 How often did people in the neighborhood help out those who were less fortunate?
 How often did your elementary school teachers emphasize order in the classroom?
 When growing up, did your parents require you to establish and stick to study hours (no T.V.)?
 Relative to others, how much was self-discipline emphasized in your home (e.g. regular meal bedtimes, etc.)?
 In school, how often have you taken classes that had an extensive number of assignments?
 Relative to others, how often did your parents lose their temper for no apparent reason?
 How often did your teachers let you slide on deadlines?
 When growing up, did your parents require you to complete household chores on a regular basis?
 How accountable are individuals in your organization for mistakes they make?
 How often have family members been unavailable to help you when you needed them?
 To what extent were your friends likely to be involved in many school and extracurricular activities?
 How often did your parents break promises they made to you?
 How concerned were your parents about how you performed?
 How often did you observe people breaking rules when you were growing up?
 How often have you seen people do without things they needed?
 How likely was violent crime to occur in your neighborhood?
 How often have you been in schools or jobs in which people could do pretty much as they pleased?
 How easy was it for students in your High School to come and go as they pleased (from the school)?
 How strict were your friends' parents?

Motive System

V. NEED FOR POWER

- To what extent does your university tolerate professors who verbally abuse students?
- How many close friends do you have?
- How often has it seemed that the best way to get ahead at your university is by knowing the right people?
- How often do people in different majors talk with one another?
- How much performance pressure has there been in your required classes?
- How often have you or your friends worried about dropping out of school because of cutbacks in financial aid?
- How frequently have people in organizations to which you belong failed to get recognition for a job well done?
- To what extent does the culture or environment at your school promote getting ahead?
- How clearly do your professors communicate goals/agendas to students?
- To what degree does your work vary from day-to-day?
- To what extent does your work organization have separate social activities for management and their employees?
- How often have suggestions made by students been ignored by the university?
- How many of your friends have received failing grades due to unacceptable performance?
- How often have you failed to complete a task on time because of bottlenecks in resources?
- How often has there been confusion about who is in charge of certain projects?
- To what extent do your professors play favorites when allocating class resources?
- To what extent have your parents asked for accounting of how you spend your money?
- To what extent have your professors made you very aware of "taking up their time"?
- How often have students tended to hoard resources, i.e. information, computers, supplies?
- To what extent have individuals in your study group held back information your group needed?
- To what extent is competition for scholarships fierce at your university?
- How secure do you feel in your job?
- Relative to other majors, how popular is your major?
- To what extent do you have a specialization or skill that sets you apart at work?
- To what extent are responsibilities clearly assigned in the organizations to which belong?
- How often have you been involved in team projects?
- How often have you been in job or school situations in which people had to look out for themselves?
- How often have you had to be competitive in order to get ahead at work or in school?
- How many of your jobs required that you answer to more than one person?
- How likely have you been to encounter "pushy" individuals in school or on the job?
- How often have you been in situations in which you were expected to take or carry out orders?
- How likely are people of different levels to socialize in your organization?
- How likely has your boss been to give you a new client/customer to handle?
- To what extent is there a clear chain of command in the social organizations to which you belong?
- To what extent have you been involved in selecting members for your social organizations?
- How often have you had professors who refuse to explain a grade they gave you?
- How often have other people helped you get your work done?
- How often do your friends make personal criticisms of others?
- How often have you been recognized as an outstanding performer at school?
- To what extent did your parents stress respect for your elders?

How difficult has it been for you to tell when you did a good job?
How difficult has it been for you to tell what a given workday would involve?
In your organization, do you get more done through informal means than through formal channels?

VI. FEAR

How often have you received unexpected criticism or praise?
How often have you been blamed for something someone else did?
How frequently have you been in situations in which it was impossible for anyone keep up with the work?
How often have received medical or health evaluations that were troublesome?
How often have been in situations in which people are just interested in looking out for themselves?
How often have you been in situations in which nothing you did seemed to make a difference?
How often has your professor cracked down in class in order to get through the material?
How often has corporal punishment been used to punish you?
How rough was the neighborhood that you grew up in?
How often have your professors made examples of students in order to motivate the class?
To what extent is it hard to do your job because you lack necessary resources?
Have you ever experienced any serious illnesses or life threatening disease?
To what extent do cliques exist at your school?
How often has your group of friends been affected by competition amongst each other?
While growing up, how often did your parents criticize your friends?
To what extent has your schoolwork been influenced by rapid/constant changes in your personal life?
To what extent have your college roommates been different from each other?
How often have you taken classes in a variety of subject areas outside your major?
How often has your major required that you take classes in subjects you weren't good at?
How often have students complained to the professor about school policies?
How supportive of your activities were your parents while you were growing up?
To what extent have your teachers placed unrealistic demands on people in classes?
How often have the goals/objectives of a group project you were working on been changed by the person who was running them?
How consistent was praise in your household when growing up?
To what extent did your family have financial worries when you were growing up?
How often has your coarse load been described as too much for one semester?

VII. NARCISSISM

How many special honors have you received in the last two years?
How often have you received special awards/commendations for work you have done?
How often have your friends boasted about their grades?
How many your successes have come easily?
How many or honors have you won without having to exert much effort?
How well or prominent was your family in the community you were raised?
How much did you receive from adults as a child?
To what is your workplace an environment where discrimination occurs?
To what extent are the organizations to which you've belonged characterized by competition among coworkers?

To what extent has your professor rewarded competition among students?
 How often have other people used their status or position to deny you something you wanted?
 To what extent has your professor played favorites?
 To what extent have your friends gotten ahead of who they know?
 To what extent is your school characterized cliques?
 How difficult was it for you to find to play with when you were growing up?
 Relative to other people, how often you had your name or picture in newspapers, or on radio or T.V.?
 To what extent was your family considered important by the community in which you lived?
 When growing up, how likely were your parents to remind you that your family had different standards other people?
 While growing up, how likely were your parents to criticize other people?
 How much did your family stress the importance of getting a job that allowed you to earn a lot of money?
 How likely were your parents to tell their friends about your accomplishments?
 How often has an organization you belonged to received special recognition from the school?
 When growing up, how often were special opportunities opened up to you because of your wealth?
 How many of the colleges to which you applied did you get in?
 How often did your parents require you to do chores around the house?
 To what extent have you talked to supervisors rather than colleagues when you had questions at work?
 To what extent does your professors criticize students in front of the class?
 To what extent does your major demand a high level of knowledge or skill?
 To what extent do organizations to which you belong require you to "pay dues" before you were responsibility?
 How often were you placed in special groups, i.e. gifted/talented, singing groups, when you were growing up?
 How many of your jobs have involved service to others?
 How important was social prestige to your father when you were growing up?
 How often did your parents criticize your choice of major?
 How far away from home did you go to college?
 How often did you go home during college?
 To what extent have you had to work to pay for school?
 When you were growing up, how often did you have to play by yourself?

APPENDIX B. Correlations of Situational Items with Seven Factors

Situational Items	Alienation	Nonsupportive Family	Negative Role Models	Life Stressors	Competitive Pressure	Negative Peer Group	Financial Need
How often have you put in more time on group projects than others in your group?	.01	.06	.28**	.16	-.38**	-.12	.06
To what extent have you been responsible for caring for or nursing someone for an extended period of time?	.01	.12	.21*	.28**	-.29**	-.14	-.14
When growing up, how often did your parents or guardians "spring" important decisions on you without explanations?	.17*	-.27**	.50**	.25**	-.26**	-.18*	.20*
In the past, how often have you been unable to work or go to school due to your health?	.04	.02	.11	.50**	-.25**	-.11	-.02
In general, how concerned have you been about evaluations (e.g., SATs, grades, etc.)?	.01	.15	.28**	.05	-.26**	.05	.10
To what extent have your professors criticized individual students in front of the class?	.29**	.18*	.27**	.30**	-.39**	-.30**	.15
Over the last six months, how often have you worried about your family's financial stability in the last six months?	.23**	-.23**	.32**	.28**	-.21*	-.16	.11
When growing up, how often did your parents or guardians break promises to you?	.27**	-.31**	.51**	.31**	-.28**	-.26**	.22*
When growing up, how often were special opportunities opened up to you because of your wealth or background?	.03	.41**	.14	-.03	-.23**	.05	.16
How often have you had large, unexpected financial expenses (e.g., health costs, care of others, etc.)?	.27**	-.29**	.38**	.44**	-.30**	-.30**	.08
When growing up, how worried did your parents or guardians seem about money, their jobs, or the state of the local economy?	.16	-.37**	.40**	.24**	-.18*	-.13	-.02
How many times has an organization you belonged to received special recognition from the school or its national organization?	.11	-.36**	-.15	-.25**	.52**	.20*	.11
How likely were your parents or guardians to tell their friends about your accomplishments?	.18*	.38**	.14	.08	-.37**	-.20*	.02
To what extent have you talked to supervisors rather than colleagues when you had questions at work?	.03	.18*	.16	.17	-.31**	-.05	-.01
How many of your summer jobs or extracurricular activities involved service to others?	.14	-.27**	.13	-.15	.19*	.11	-.02
How likely has it been for people at different levels in your organization to socialize?	.15	.29**	.10	.06	-.34**	-.09	.14

APPENDIX B. Correlations of Situational Items with Seven Factors (Continued)

Situational Items	Alienation	Nonsupportive Family	Negative Role Models	Life Stressors	Competitive Pressures	Negative Peer Group	Financial Need
How often was corporal (physical) punishment used to punish you when you were growing up?	.18*	-.37**	.28**	.22**	-.08	-.22*	.09
To what extent is there a clear chain of command in the social organizations to which you belong?	.02	.18*	.27**	.08	-.47**	-.03	.12
How many of your friends had to drop out of school due to financial or family concerns?	.18*	-.03	-.22**	-.33**	.27**	.36**	.02
To what extent have work responsibilities been clearly assigned in the organizations to which you belong?	.07	.10	.29**	.19*	-.47**	-.08	.09
To what extent have you had a specialization or skill that sets you apart from others at school?	.02	.16	.19*	.11	-.41**	-.08	-.03
Typically, how often have you been asked to take responsibility for a specific piece of work?	.13	.18*	.39**	.22*	-.49**	-.05	-.06
In your organization, how often have you gotten more done through informal means than through formal channels?	-.06	.01	.16	.25**	-.45**	-.10	.11
To what extent have you been involved in helping a friend solve relationship problems?	-.19*	.29**	.18*	.26**	-.32**	-.19*	.16
When growing up, to what extent did your parents or guardians require you to complete household chores on a regular basis?	-.05	.06	.31**	.15	-.30**	-.13	-.12
To what extent has it been hard to do your job because you lacked necessary resources?	.43**	-.14	.41**	.38**	-.38**	-.37**	.07
To what extent have you been involved in selecting members for your social organizations?	.23**	.29**	.26**	.18*	-.53**	-.15	-.01
How often have your professors made examples of students in order to motivate the class?	.29**	.16	.12	.30**	-.33**	-.23**	.18*
When growing up, to what extent did your family's income or social status change?	.27**	-.03	.33**	.16	-.29**	-.14	.25**
Relative to other places you have lived, to what extent has your living situation had a family atmosphere?	-.28**	.44**	.00	-.05	-.16	.15	-.07
How often have you had to bend the rules to get things done at work or in the organizations to which you belong?	.37**	-.11	.22*	.23**	-.22*	-.36**	.10
How much competition has there been among coworkers in organizations to which you belong?	.26**	.11	.28**	.14	-.44**	-.24**	.04

APPENDIX B. Correlations of Situational Items with Seven Factors (Continued)

Situational Items	Alienation	Nonsupportive Family	Negative Role Models	Life Stressors	Competitive Pressure	Negative Peer Group	Financial Need
How often have fellow students expressed concern about not being able to find a job after college?	.25**	.05	.29**	.37**	-.45**	-.29**	.13
To what extent did your parents or guardians have to scrimp and save when you were growing up?	.18*	-.36**	.25**	.26**	-.14	-.11	-.03
How often have you seen close family members who don't live with you (i.e., parents, grandparents)?	-.17	.32**	-.06	-.15	-.05	.12	-.09
Over the last two years, how many times have you been forced or asked to leave a job?	-.16	.07	.07	.01	.06	.11	.03
When you were growing up, were your heroes likely to be (Please choose the category that most represents your heroes):	-.04	.03	.01	-.07	-.02	.13	.00
While in school, how difficult has it been for you to find employment during breaks (i.e., Summer)?	.30**	-.06	.12	.15	-.10	-.19*	.15
In organizations to which you belong, how often have you been disappointed by the way people behaved towards others?	.19*	-.08	.22*	.24**	-.27**	-.19*	.22**
When growing up, how likely were your parents or guardians to remind you that your family had different standards than other people?	.15	.02	.52**	.21*	-.28**	-.15	.25**
While growing up, how likely were your parents or guardians to criticize other people?	.24**	-.37**	.48**	.27**	-.16	-.18*	.20*
How often have your school organizations (i.e., fraternity/sorority, student government, etc.) held special outings for students?	.12	.26**	.14	.20*	-.40**	-.19*	.18*
To what extent did your family stress the importance of getting a job that allowed you to earn a lot of money?	.23**	-.14	.53**	.10	-.17	-.08	.22*
To what extent have organizations to which you belong required you to "pay dues" or "learn the ropes" before you were given responsibility?	.27**	.09	.24**	.15	-.34**	-.11	.14
How often have you lost friends in your social organization (i.e., fraternity/sorority, student government, etc.) due to shifting alliances?	.42**	-.08	.28**	.32**	-.28**	-.31**	.03
To what extent have your scholarships or loans been dependent on economic conditions in the U.S.?	.28**	-.09	.31**	.24**	-.29**	-.26**	-.02
How often have you felt that your friends or coworkers were intentionally ignoring you?	.28**	-.18*	.19*	.35**	-.17	-.23**	.29**
How likely were your high school friends to get into trouble or have brushes with the law?	.25**	-.01	.00	.12	-.13	-.54**	-.03

APPENDIX B. Correlations of Situational Items with Seven Factors (Continued)

Situational Items	Alienation	Nonsupportive Family	Negative Role Models	Life Stressors	Competitive Pressure	Negative Peer Group	Financial Need
To what extent have you felt your professors/superiors were condescending to you?	.46**	-.14	.19*	.38**	-.21*	-.41**	.17
To what extent have the social groups to which you belonged fostered a competitive atmosphere?	.35**	.14	.19*	.07	-.39**	-.22*	.15
How often has the way your Mother/Father treated you been dependent on his/her mood?	.14	-.33**	.39**	.36**	-.16	-.21*	.19*
To what extent has your schoolwork been affected by the problems of family members?	.32**	-.25**	.35**	.53**	-.20*	-.37**	.13
How often were you placed in special groups, i.e., gifted/talented, singing groups, when you were growing up?	.01	.29**	.26**	.21*	-.44**	-.17	.03
Relative to your classmates, how often did your family move while you were growing up?	.17	-.12	.17	.18*	-.16	-.24**	.17
Relative to others, how consistent were your parents or guardians with their praise or punishment of your actions.	-.29**	.53**	.02	-.04	-.29**	-.01	-.04
To what extent have you struggled with a serious illness or life threatening disease?	-.10	.01	-.11	.44**	-.04	.01	-.08
How often have your teachers' standards of performance appeared to arbitrarily change?	.35**	.03	.23**	.30**	-.36**	-.32**	.20*
How often have you been in job or school situations in which people had to look out only for themselves?	.24**	-.09	.23**	.29**	-.34**	-.25**	.27**
How much did your parents or guardians encourage having your friends over to the house?	-.22**	.56**	-.12	.01	-.16	-.08	-.12
How often have others in your classes complained that they were treated unfairly by professors?	.22*	.19*	.22**	.34**	-.40**	-.29**	.13
When growing up, to what extent was praise consistent in your household when growing up?	-.24**	.75**	-.01	-.04	-.29**	-.02	-.02
How often has it seemed that the best way to get ahead at your university is by knowing the right people?	.31**	.13	.17	.22*	-.22*	-.24**	.35**
How many of your friends and family members were heavy users of drugs and alcohol?	-.14	.03	-.05	-.26**	.20*	.54**	.01
How often have your professors spent time with students helping them with personal problems?	-.06	.15	-.03	.11	-.03	-.15	-.16
How often have you witnessed verbal or physical violence?	.23**	-.34**	.22**	.28**	-.09	-.43**	.20*

APPENDIX B. Correlations of Situational Items with Seven Factors (Continued)

Situational Items	Alienation	Nonsupportive Family	Negative Role Models	Life Stressors	Competitive Pressure	Negative Peer Group	Financial Need
To what extent are people in your workplace asked to do double duty or "wear too many hats"?	.07	-.11	.21*	.24**	-.25**	-.15	.00
How often did you witness violent arguments in your house between adults when you were growing up?	.21*	-.48**	.43**	.37**	-.10	-.38**	.19*
How many professors have you known who had to leave your university due to improprieties?	-.21*	-.02	-.19*	-.20*	.15	.22*	.11
How often have your coworkers felt that their work was not appreciated by your boss?	.28**	-.12	.23**	.34**	-.27**	-.27**	.12
How often have you been put in positions where you had to help people deal with personal problems?	-.16	.21*	.23**	.36**	-.37**	-.28**	.13
How likely were your college friends to get into trouble or have brushes with the law?	.33**	.01	.07	.22**	-.19*	-.64**	.01
To what extent has your workplace been an environment where discrimination occurs?	.44**	-.24**	.34**	.32**	-.23**	-.34**	.13
To what extent have the organizations to which you've belonged been characterized by competition among friends?	.36**	.15	.33**	.17	-.47**	-.29**	.12
How often have you taken classes in a variety of subject areas outside your major?	.03	.12	-.02	.12	-.15	-.15	.07
To what extent has your schoolwork been influenced by rapid/constant changes in your personal life?	.24**	-.04	.22*	.43**	-.23**	-.30**	.15
How often have you found yourself discussing religious, social, ethical and political issues with your friends or family?	-.29**	.22*	.22**	.16	-.34**	-.06	-.04
To what extent have your teachers placed unrealistic demands on people in classes?	.35**	.13	.25**	.48**	-.45**	-.36**	.17
How supportive of your activities were your parents or guardians while you were growing up?	-.31**	.75**	-.25**	-.16	-.13	.03	-.10
How often have you been disappointed by an authority figure you had looked up to?	.38**	-.20*	.41**	.38**	-.26**	-.32**	.12
How important was it to your parents or guardians that you accomplish something with your life even if you didn't make a lot of money?	-.23**	.44**	.11	-.03	-.25**	-.06	-.16
At what age did you first experience the death of an immediate family member or very close friend?	.01	.14	.09	.09	-.12	-.14	.14
To what extent have your professors made you very aware of "taking up their time"?	.48**	-.01	.29**	.48**	-.37**	-.35**	.20*

APPENDIX B. Correlations of Situational Items with Seven Factors (Continued)

Situational Items	Alienation	Nonsupportive Family	Negative Role Models	Life Stressors	Competitive Pressure	Negative Peer Group	Financial Need
How often has your group of friends been affected by competition amongst each other?	.38**	.15	.34**	.17	-.37**	-.32**	.20*
How often have other people used their status or position to deny you something you wanted?	.55**	-.09	.45**	.35**	-.36**	-.35**	.37**
To what extent have your parents or guardians asked for an accounting of how you spend your money?	.26**	-.07	.29**	.18*	-.16	-.17	.26**
When growing up, how often did your parents or guardians explain to you why you were being punished?	-.23**	.60**	-.08	-.05	-.21*	-.06	-.08
How often have you failed to complete a task on time because of bottlenecks in resources?	.27**	-.04	.18*	.24**	-.16	-.29**	.05
How often did your father/mother ask each other for advice on solving problems at work?	-.03	.43**	.00	-.07	-.11	.04	-.14
How often has your major required that you take classes in subjects you weren't good at?	.21*	-.01	.13	.33**	-.15	-.26**	.19*
How often did you have the opportunity to work with a professor you really liked in school?	.01	.13	.06	.07	-.24**	-.16	-.14
How well known or prominent was your family in the community you were raised?	-.08	.53**	.37**	-.01	-.33**	-.03	.04
Relative to others, how much was self-discipline emphasized in your home (e.g., regular meal bedtimes, etc.)?	-.17	.33**	.25**	-.15	-.17*	.14	-.32**
When growing up, to what extent did your parents or guardians require you to establish and stick to study hours (e.g., no T.V.)?	-.03	.28**	.37**	-.06	-.20*	.05	-.20*
How accountable have individuals in your organization been for mistakes they made?	-.24**	.28**	-.07	-.05	-.17	.15	-.17
How often have family members been unavailable to help you when you needed them?	.35**	-.39**	.31**	.29**	-.13	-.14	.00
Relative to others, how often have your parents or guardians lost their temper for no apparent reason?	.27**	-.48**	.53**	.40**	-.13	-.32**	.04
How often have people in the neighborhood helped out those who were less fortunate?	-.20*	.31**	.00	-.03	-.14	.02	-.19*
To what extent did your elementary school teachers maintain order in the classroom?	-.26**	.10	.02	-.07	-.08	.19*	-.10
How likely have you been to encounter "pushy" individuals in school or on the job?	.15	-.01	.23**	.34**	-.38**	-.28**	.32**

APPENDIX B. Correlations of Situational Items with Seven Factors (Continued)

Situational Items	Alienation	Nonsup- portive Family	Negative Role Models	Life Stressors	Competitive Pressure	Negative Peer Group	Financial Need
How often have you been in situations in which you were expected to take or carry out orders?	-.15	-.03	.13	.16	-.37**	-.05	.14
How often have you had to be competitive in order to get ahead at work or in school?	.14	.29**	.41**	.05	-.57**	-.08	.13
How often has your professor cracked down in class in order to get through the material?	.27**	.09	.17	.37**	-.29**	-.36**	.07
How often did your parents or guardians provide encouragement or support for your happiness or accomplishments?	-.29**	.77**	-.14	-.18*	-.20*	.03	-.03
When you were young, to what extent were your parents or guardians involved in legal dispute(s)?	.31**	-.21*	.21*	.22*	-.10	-.34**	.04
How often have you been in situations in which nothing you did seemed to make a difference?	.38**	-.23**	.19*	.40**	-.12	-.32**	.35**
To what extent have individuals in your study group held back information your group needed?	.61**	.04	.32**	.27**	-.21*	-.31**	.05
To what extent has the competition for scholarships been fierce at your university?	.27**	.19*	.20*	.23**	-.36**	-.28**	.05
To what extent have you felt that your friends or roommates would go to great lengths to support you in times of personal crises?	-.37**	.28**	-.08	.07	-.19*	-.05	-.15
When you were growing up, how many families in your neighborhood were receiving some type of public assistance (e.g., food stamps, welfare)?	.20*	-.24**	.05	.16	.11	-.19*	-.37**
To what extent did your university provide you with inappropriate guidance concerning your curriculum?	.29**	.05	.28**	.37**	-.27**	-.34**	.02
How often did your parents or guardians bring their work frustrations home with them?	.16	-.31**	.40**	.43**	-.20*	-.30**	.17
How frequently have you been in situations in which it was impossible for anyone to keep up with the work?	.47**	-.27**	.26**	.46**	-.17	-.39**	.22*
How often have you received medical or health evaluations that were troublesome?	.03	-.03	-.11	.54**	-.04	-.22**	-.11
When you were growing up how often did your parents or guardians emphasize/encourage you to think things through before taking action?	-.22**	.64**	.05	-.07	-.33**	-.02	-.01
To what extent has your workplace been characterized by coworkers who are supportive of each other?	-.26**	.35**	-.05	-.01	-.15	.04	-.24**

APPENDIX B. Correlations of Situational Items with Seven Factors (Continued)

Situational Items	Alienation	Nonsupportive Family	Negative Role Models	Life Stressors	Competitive Pressure	Negative Peer Group	Financial Need
To what extent were your friends likely to be involved in many school and extracurricular activities?	.03	.30**	.22*	.11	-.39**	-.15	.00
To what extent have people in organizations to which you belong gotten in trouble with legal agencies?	.47**	-.05	.15	.28**	-.21*	-.54**	-.10
To what extent were your parents or guardians supportive of decisions you made while growing up?	-.39**	.75**	-.23**	-.20*	-.12	.15	-.09
How often have you been in schools or jobs in which people could do as they pleased?	.11	.16	.04	.23**	-.20*	-.26**	.06
How strict were your friends' parents?	.11	-.01	.05	.08	-.06	.02	-.07
How often have you been in a situation where you were unable to protect someone you cared about?	.24**	-.03	.17	.42**	-.18*	-.31**	.12
How many special honors have you received in the last two years?	.03	-.33**	-.02	-.08	.33**	.08	.08
How many times, have you had your name or picture in newspapers?	.02	-.27**	.01	-.12	.31**	.20*	.19*
How many teachers were you close to in high school?	-.08	.32**	.08	.14	-.28**	-.12	-.16
How many of your jobs required that you answer to more than one person?	.01	-.01	-.06	.14	-.14	-.13	.11
How much difficulty have you had meeting monthly bills?	.22**	-.20*	.28**	.39**	-.18*	-.34**	-.24**
How strictly enforced has the honor code been at your school?	.01	.02	.18*	.11	-.10	-.08	-.02
How important was social prestige to your family when growing up?	.24**	.12	.58**	.05	-.25**	-.07	.11
Relative to others, how harsh were your parent's punishments?	.19*	-.27**	.42**	.25**	-.18*	-.22*	-.01
How important has maintaining professional standards been in your organization?	.04	.14	.24**	.15	-.29**	.07	-.17
How difficult has it been to tell what was expected of you at work?	.39**	.19*	.23**	.28**	-.13	-.29**	.22**
How accepted was your family in the neighborhood?	-.32**	.56**	.02	-.09	-.25**	.12	-.03
How rough was the neighborhood that you grew up in?	.28**	-.31**	-.01	.11	.09	-.22**	-.06
How tense has your living situation been?	.31**	-.45**	.38**	.41**	-.15	-.30**	.02
To what extent has anyone close to you had problems with drugs or alcohol?	.10	-.10	.12	.36**	-.16	-.53**	-.09
To what extent have major events at work or school affected your family life?	.08	.02	.20*	.46**	-.32**	-.35**	.01
To what extent has your major demanded a high level of knowledge or skill?	.10	.05	.23**	.13	-.33**	-.02	.03

APPENDIX B. Correlations of Situational Items with Seven Factors (Continued)

Situational Items	Alienation	Nonsupportive Family	Negative Role Models	Life Stressors	Competitive Pressure	Negative Peer Group	Financial Need
To what extent have people encouraged you to recycle at your school?	.06	.07	.16	.27**	-.25**	-.31**	.06
To what extent have your friends boasted about their grades?	.35**	.15	.27**	.29**	-.31**	-.29**	.22**
To what extent have people in your social groups accepted new members?	-.26**	.16	-.03	.02	-.07	.14	.05
To what extent have successes come easily to you?	-.22**	.36**	.07	-.06	-.28**	.03	-.09
To what extent has teachers' feedback about your work been consistent?	-.37**	.28**	.14	-.02	-.29**	.06	-.06
To what extent has your school been characterized by cliques?	.30**	.06	.19*	.30**	-.25**	-.38**	.34**
To what extent did you have heroes while you were growing up?	.19*	.19*	.23**	.15	-.29**	-.18*	.01
As a child, how often did parents or teachers praise your work?	-.25**	.68**	.04	.00	-.31**	.01	.02
To what extent have you witnessed people being taken advantage of?	.30**	-.06	.37**	.42**	-.38**	-.56**	.17
To what extent have you enjoyed holidays?	-.28**	.47**	-.03	-.07	-.21*	.14	.06
To what extent have your college roommates been different from each other?	.15	.12	.14	.15	-.25**	-.22*	.03
To what extent has your school fostered a competitive environment?	.09	.24**	.15	.16	-.33**	-.18*	.12
To what extent did you have input in important family matters?	-.18*	.56**	-.04	-.04	-.19*	.03	.01
To what extent have your teachers enforced the absenteeism policy?	.09	.06	.22**	.07	-.11	.07	-.27**
To what extent did you have to compete to get into your major?	.32**	-.03	.18*	-.04	-.11	.00	.02
To what extent does it bother you when a professor changes an assignment?	.14	.13	.17	.25**	-.26**	-.13	.00
To what extent you have you had to work to pay for school?	.09	-.22**	.33**	.13	-.08	-.07	-.19*
To what extent have you had a study schedule?	.01	.08	.29**	-.05	-.16	.19*	-.32**
To what extent were deadlines in your classes "hard and fast"?	.17	-.01	.42**	.28**	-.36**	-.17	-.03
To what extent have student organizations had to fight to get resources?	.44**	.06	.30**	.28**	-.35**	-.34**	.04
To what extent has your family had financial worries?	.22*	-.41**	.39**	.32**	-.21*	-.24**	-.01
To what extent did your parents or guardians monitor your T.V. viewing?	.03	.15	.26**	.10	-.22**	-.06	-.09
To what extent have your classes been overcrowded due to budget cuts?	.35**	.00	.34**	.39**	-.36**	-.20*	.01
To what extent have your friends gotten ahead by who they know?	.42**	.14	.38**	.32**	-.41**	-.38**	.22*
To what extent did your parents or guardians stress respect for your elders?	-.16	.27**	.29**	-.05	-.29**	.01	-.09

APPENDIX B. Correlations of Situational Items with Seven Factors (Continued)

Situational Items	Alienation	Nonsupportive Family	Negative Role Models	Life Stressors	Competitive Pressure	Negative Peer Group	Financial Need
To what extent have your professors played favorites?	.46**	.01	.28**	.49**	-.35**	-.41**	.14
To what extent were you faced with conflicting demands in your household?	.35**	-.35**	.41**	.41**	-.25**	-.33**	.08
How much time have you spent with individuals who were optimistic about life?	-.27**	.45**	.08	.01	-.34**	.04	-.16
In grade school, how often did your parents or siblings work with you on your school work?	-.17	.53**	-.04	-.06	-.17	.00	-.03
How likely have you been to stay in touch with friends after you moved?	-.12	.15	.12	.10	-.11	-.03	.02
Have either of your parents passed away?	.04	-.04	.01	-.01	.02	-.06	.22*
How old were you when your mother passed away?	-.03	.07	-.06	-.06	-.02	-.02	.49**
Have any of your brothers or sister passed away? If yes, how old were you?	-.09	.16	.04	-.08	-.13	.20*	.22*
How old were you when your father passed away?	.05	.08	.05	.04	-.10	-.04	.45**
Typically, how often did you go home during a college year?	.03	-.10	.12	.07	-.14	-.06	-.10
How old were you when your parents separated or divorced?	.00	.17*	.00	-.10	.04	.24**	-.08
How recently, has anyone you were close to passed away?	-.08	.19*	.03	.19*	-.14	-.21*	-.16
How recently has someone you were close to started a new job?	.04	-.06	.16	.09	-.06	-.11	-.02
Over the last five years, how many of your close friends have been seriously ill?	.05	-.10	-.03	-.31**	.12	.21*	.20*
How many close friends have you lost because of a serious disagreement?	-.14	-.01	.01	-.22*	.04	.27**	.09
When growing up, how many nights a week did your family eat dinner together?	.29**	-.40**	.04	.13	.07	-.20*	.12
How many members of your family have been in trouble with the law?	-.02	.07	.03	-.07	.02	.22**	.34**
How many close personal friends have you made at school?	-.12	-.31**	-.04	-.08	.28**	.19*	-.12
How many of your friends' parents have gotten divorced over the last five years?	-.23**	-.08	-.07	-.21*	.24**	.37**	-.02
How many of your friends couldn't afford to go to college?	.21*	-.12	-.01	.08	.00	-.11	-.20*
How often have you felt unable to defend yourself against physical attacks?	.28**	-.23**	.03	.40**	-.06	-.21*	.14
How often did you observe people breaking rules when you were growing up?	.31**	-.19*	.08	.33**	-.13	-.48**	.10
How often have you received unexpected criticism?	.40**	-.11	.19*	.38**	-.18*	-.40**	.17
How often have you made your early morning classes?	-.07	-.03	.07	-.14	-.05	.22**	-.11

APPENDIX B. Correlations of Situational Items with Seven Factors (Continued)

Situational Items	Alienation	Nonsup- portive Family	Negative Role Models	Life Stressors	Competitive Pressure	Negative Peer Group	Financial Need
How often have you had a professor who did not clearly explain assignments?	.35**	.11	.25**	.42**	-.33**	-.39**	.10
How often has your professor taken advantage of students?	.56**	.14	.26**	.35**	-.35**	-.41**	-.08
How often have you been blamed for something someone else did?	.40**	-.12	.28**	.43**	-.19*	-.38**	-.01
How often have you seen coworkers take advantage of each other?	.43**	-.09	.35**	.38**	-.36**	-.44**	.00
How often have suggestions made by students been ignored by the university?	.23**	.19*	.18*	.14	-.39**	-.27**	.27**
How many of your friends received failing grades due to unacceptable performance?	-.26**	-.08	.02	-.19*	.11	.34**	-.03
How often have you had professors who refused to explain a grade they gave you?	.51**	.06	.21*	.24**	-.16	-.30**	.05
How often have you been involved in team projects?	.01	.26**	.22**	.13	-.52**	-.14	-.03
While growing up, how often did your parents or guardians criticize your friends?	.35**	-.37**	.35**	.30**	-.08	-.29**	.10
How often have your friends criticized peers who didn't play by the rules?	.20*	.01	.13	.19*	-.12	-.29**	-.06
How much performance pressure has there been in your required classes?	.14	.11	.18*	.27**	-.34**	-.22*	.16
To what extent have you or your friends worried about dropping out of school because of cutbacks in financial aid?	.40**	-.05	.32**	.33**	-.31**	-.29**	-.02
How frequently have people in your organization(s) failed to get recognition for a job well done?	.33**	-.04	.27**	.40**	-.43**	-.34**	.09
How much individual attention have students in your classes typically received?	.01	.16	.03	.10	-.06	-.15	-.30**
How often did your parents get visibly and vocally angry at each other?	.06	-.36**	.30**	.32**	-.11	-.36**	.07
How often did your friends encourage you to get drunk or use drugs?	.17	-.03	.09	.23**	-.13	-.50**	.09
How often have you witnessed someone get in trouble for being honest?	.40**	-.15	.32**	.49**	-.30**	-.55**	.12
To what extent has your university tolerated professors who verbally abuse students?	.44**	.05	.24**	.27**	-.18*	-.32**	-.05
How often have you seen your friends cheat on a boy/girlfriend?	.35**	-.03	.22*	.30**	-.26**	-.51**	.04
How many people have you known that dropped out of school?	-.11	-.01	-.04	-.28**	.16	.32**	.18*
How often did your parents get visibly and vocally angry at each other?	.12	-.37**	.30**	.33**	-.11	-.38**	.13
How often have you been encouraged to win at whatever the cost?	.36**	.12	.28**	-.01	-.22*	-.24**	.20*
How often has your course load been described as too much for one semester?	.26**	.04	.31**	.32**	-.36**	-.25**	-.04
How often have you unexpectedly heard from "old" friends or roommates?	.03	.27**	.15	.18*	-.30**	-.25**	.01

APPENDIX B. Correlations of Situational Items with Seven Factors (Continued)

Situational Items	Alienation	Nonsupportive Family	Negative Role Models	Life Stressors	Competitive Pressure	Negative Peer Group	Financial Need
How often have you been the victim of a major crime (e.g., rape, robbery)?	.35**	-.14	.15	.34**	-.05	-.54**	-.29**
How often have you had to be aggressive to get ahead at school?	.09	.28**	.23**	.08	-.35**	-.19*	.04
How often have teachers ignored suggestions from students?	.44**	.08	.26**	.34**	-.37**	-.36**	.31**
How likely was the neighborhood(s) you grew up in to be described as "rough"?	.31**	-.29**	.01	.11	.10	-.27**	-.15
How often did you miss long periods of school because of illness?	-.01	.00	.07	.56**	-.14	-.20*	-.12
How often have your bosses threatened to give you an official reprimand?	.35**	-.19*	.10	.23**	-.11	-.38**	.02
How often have you had something of yours stolen or vandalized?	.31**	-.12	.23**	.25**	-.16	-.39**	-.11
How often have you felt like you had too much work to do?	.17*	-.06	.21*	.37**	-.23**	-.22*	.08
How often have you been disappointed by the behavior of people you respected?	.38**	-.20*	.33**	.49**	-.21*	-.45**	.08
How often were you turned down for positions/promotions you really wanted?	.54**	-.20*	.24**	.23**	-.11	-.24**	.14
How often have you felt singled out because of cultural differences?	.53**	-.17	.43**	.26**	-.20*	-.29**	.03
To what extent have your friends expressed a cynical attitude toward society?	.38**	-.20*	.27**	.29**	-.21*	-.49**	.17
In your neighborhood, how often has your house or car been broken into?	.42**	-.20*	.17	.16	.01	-.34**	-.16
How often have you been surprised when a boy/girlfriend broke up with you?	.21*	-.03	.09	.23**	-.21*	-.30**	-.19*
How often have your coworkers/classmates made personal criticisms of others?	.34**	-.13	.26**	.32**	-.38**	-.38**	.27**
How often have you taken a difficult class where the professor refused to curve?	.36**	.08	.33**	.33**	-.38**	-.34**	.15
How often have you seen your friends compromised in order to gain personally?	.43**	.10	.33**	.20*	-.27**	-.35**	.11
How often have you heard rumors about tuition or class size increases?	.17	.11	.23**	.33**	-.36**	-.28**	.10
How often have you been recognized as an outstanding performer at school?	.04	.35**	.28**	.14	-.43**	-.08	-.16
How often have your teachers let you slide on deadlines?	.17	-.04	.01	.24**	-.04	-.35**	.11
When you were growing up, how often did you have to play alone?	.14	-.30**	.08	.16	-.08	-.05	.06
How often has your parents or guardians criticized your choice of major?	.26**	-.23**	.26**	.21*	-.02	-.08	.12
How often did you miss long periods of school because of illness?	.00	-.01	.05	.56**	-.11	-.22*	-.18*
How often have your friends broken promises?	.40**	-.19*	.31**	.37**	-.20*	-.41**	.18*
How often have you seen people rewarded for poor work?	.38**	-.13	.11	.20*	-.09	-.36**	-.01

APPENDIX B. Correlations of Situational Items with Seven Factors (Continued)

Situational Items	Alienation	Nonsupportive Family	Negative Role Models	Life Stressors	Competitive Pressure	Negative Peer Group	Financial Need
How often were you picked on by bullies?	.29**	-.27**	.17	.39**	-.08	-.23**	.14
Have you ever witnessed anyone being seriously injured or killed?	.15	-.09	.00	.09	-.02	-.19*	.08
Growing up, how much time did you spend with older people?	-.18*	.19*	.11	.09	-.15	-.01	-.12
Have you ever had to help a friend deal with an unplanned pregnancy?	-.16	.16	-.03	.24**	-.20*	-.24**	-.17
Have you ever had a close friend who committed or attempted suicide?	.03	-.05	.11	.32**	-.18*	-.30**	.01

* $p < .01$

** $p < .001$